MEC PROJECT ASSIGNMENT

Project Name-

Submission Date- 18th April 2021

Group no.- 5

CAR MANUFACTURING FIRMS VS COFFEE CHAINS

Group members: -

1. Jayant Krishnan- 2010110315
2. Prateek Yadav- 2010110872
3. Samyak Agarwal- 2010111177
4. Shubh Jain- 2010111212
5. Viraj Jariwala- 2010110719
6. Vihaan Chadda- 2010111013
7. Parth Sethi

Q1 Compare the car manufacturing firms (in India) with branded coffee firms. Under which market structures would you categorize these two? Justify listing down the features.

Answer:

The car manufacturing firms fall under the category of an oligopoly market.

Oligopoly is a market structure with a small variety of firms, none of which can the hold others from having sizeable influence. It is any other form of imperfect competition. There is interdependence amongst every other i.e., strategic behavior.

A monopoly is one firm, a duopoly is two firms, and an oligopoly is two or more firms. There is no upper limit to restrict to the wide variety of companies in an oligopoly, however the variety need to be low sufficient that the moves of one association notably influence the others.

Oligopolies can result from a variety of forms of collusion that reduce market competition which then leads to higher prices for buyers and lower wages for the personnel of oligopolies. In an oligopoly market structure, a few massive corporations dominate the market, and each company recognizes that every time it takes a motion it will provoke a response among the different firms.

CAUSES OF OLIGOPOLY:

1. **Economy**: Industrial firms, with heavy investment, using advanced technology and harvesting economies of production, marketing, promotion, etc., in order to compete and thrive in the market.
2. **Barrier to Entry**: In many industries, new firms are unable to enter the industry as large firms' own patents or control the essential raw materials used in product production. Spending heavy investment on advertising by the oligopolistic industry can also be a financial barrier for new companies to enter the industry.

3. **Integration**: When a few firms in the industry smell the risk of the entry of new firms, they quickly merge and formulate an integrated policy on the price and production of products. The co-operation of a few large firms does not allow for the entry of new firms into the sector.
4. **Reliability**: As the number of firms is small in the oligopolistic industry, therefore, they are constantly monitoring the price charged by competing firms in the industry. The firm usually avoids the price of the asset and tries to create derelict conditions.

The Indian car manufacturing industry is a good example of an ***oligopoly***. The major players in this are Hyundai, Toyota, Tata, Maruti Suzuki and Mahindra. The oligopoly in the Indian car industry is collusive, because of that, it will after that be pointed out how price cheaters are punished in that cartel.

Car manufacturing industry is considered in an oligopolistic market because of the less competition but having a great market power in the companies and each firm recognizes that every time it takes an action it will have a response among the competitive firms.

(i) It offers little differentiation within the market. There are not many different types of cars that can compete in the market.

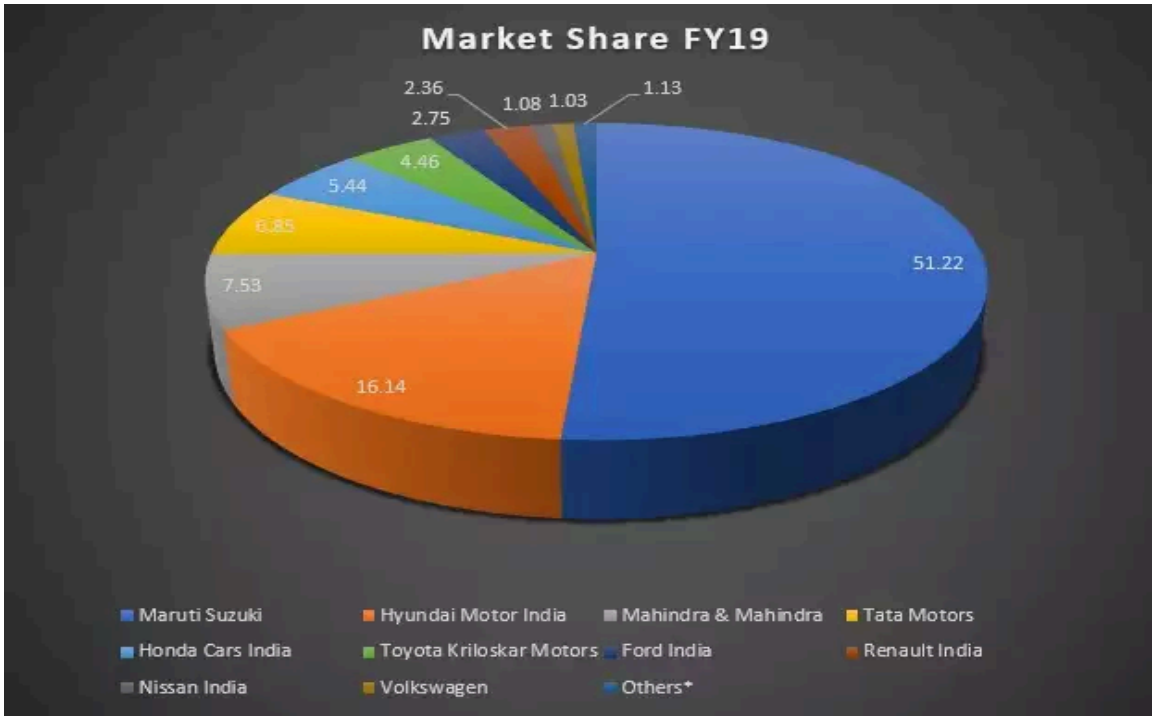
(ii) It has significant barriers to entry. A certain standard is to be met to enter the Indian car market.

(iii) It is controlled by companies that patent key technology.

(iv) It relies on price variation to attract customers. An entry level price attracts many new customers and makes it easy to enter the market.

(v) It depends on brand loyalty and image to generate sales. If the brand is well known around the world, it will attract more buyers leading to more sales.

(vi) It is dominated by a few key players. A few manufacturers like Hyundai and Maruti Suzuki dominate the Indian market and has the most sales.



EFFECTS OF OLIGOPOLY MARKET ON CAR MANUFACTURING FIRMS:

1. **Low output and high prices:** Compared to full competition, the oligopolist puts prices at a high level and low yields.

2. **Prohibition of entry**: As a monarchy alone, there is a limit to the entry of new firms into the oligopolistic industry. No new car companies can easily enter the market and even if they do, they will not be able to exist over time.

3. **Prices exceed the average cost:** Under oligopoly, firms set prices higher than AC. Consumers have to pay more than what is needed to maintain services in the industry. In other words, economic productivity is not used in accordance with consumer preferences.

4. **Low efficiency:** Some economists say there is a low level of productivity in oligopoly. There is no tendency for oligopolists to build large plant scales and use them at very good extraction rates. However, the Schumpeterian hypothesis states that there is a high tendency for creativity and technological advances in the oligopolistic industry. As a result, production costs are reduced by increasing production capacity. It will remove consumer residual losses from very high prices.

5. **Sales Cost:** In order to snatch the markets from their competitors, oligopolistic firms can participate in a powerful marketing and marketing effort through advertising and by changing the structure and improving the quality of their products.

6. **Comprehensive product range:** Compared to autonomy or pure competition, it distinguished oligopoly sites that serve consumers with a wide range of goods.

7. **Social Outcomes**: Under the oligopoly, huge sums of money are invested in commercial promotions to create a diversity of quality and design. Therefore, from a socio-economic point of view, the oligopoly is doing well. The oligopolists suppressed low-cost competition beyond the desired limits in society.

The coffee shop industry falls under the category of monopolistic competition.

Monopolistic competition may be a middle ground between monopoly and perfect competition (a strictly theoretical state) and combines parts of every.

Monopolistic competition may be a market structure pertaining to several little companies' competitor against one another. There are several companies' competitor for identical cluster of shoppers. However, companies in monopolistic competition sell similar however extremely differentiated merchandise. In monopolistic competition, a firm takes costs the costs} charged by its rivals as given and ignores the impact of its own prices on the costs of different companies.

Monopolistic competitive markets have extremely differentiated products; have several companies providing the great or service; companies will freely enter and exits within the long-term (As a result, the number of companies within the market adjusts till economic profits are zero); companies will create choices independently; there is a point of market power; and consumers and sellers have imperfect info. the form of the demand curve of noncompetitive lies in between monopoly and PC: attributable to convenience of shut substitutes, a lot of elastic than that of a Monopoly. noncompetitive competitors, like monopolists, maximize profit by manufacturing the amount at that marginal revenue equals cost.

FEATURES OF MONOPOLISTIC COMPETITION:

Monopolistic competition refers to a market situation in which many manufacturers produce the closest goods. The two most important distinguishing features of the competition alone are:

(a) **Product classification,** also

(b) **The existence of multiple firms that provide a market.**

(a) Product Division: In contrast to the complete competition where there is only one commodity, in the independent competition there is a product division. In the competition for independence, products are incompatible and are not simply remote devices. These are products produced by competing landowners with different ownership, brand, logos, patents, quality and other features of the product. Product segregation does not mean that goods are completely different. Rather it means that the products are somewhat different, but not completely. These hypothetical variations are caused by advertising, marketing, packaging and the use of trademarks and brand names.

(b) Availability of Multiple Firms**:** Under independent competition, there are a very large number of vendors, say 25 to 70. Each company has a very small share of the total market so that each has a limited power at the price of the product. And each company determines its pricing policy without regard to the response of competing firms.

(c) In an independent competition, in time there is **freedom to enter and exit.**

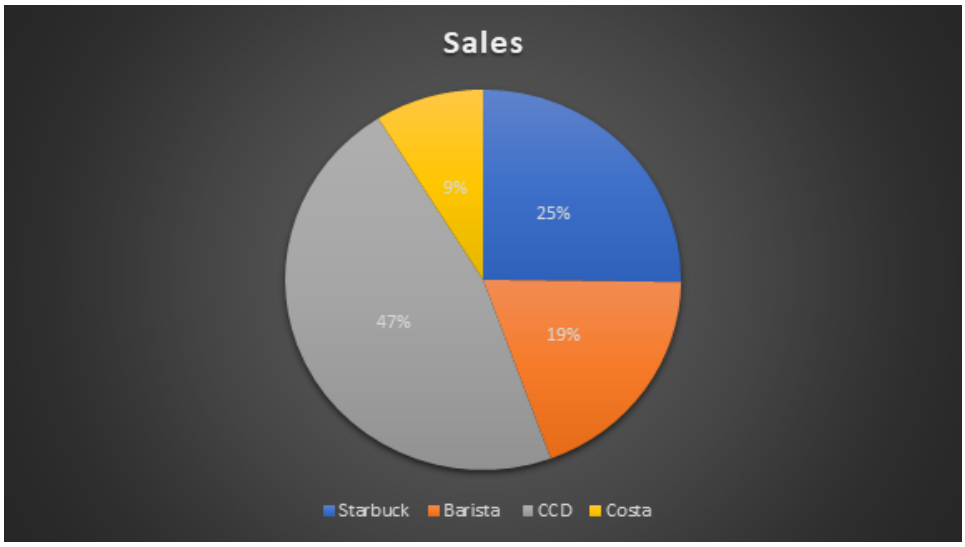
(d) The goods sold in the competitive individual market are not the same product but a separate product. So, competition is no longer special in price. Consumers buy a combination of body products and related services.

(e) By attaching consumers to a particular product, the seller gains the independence of the market. Therefore, the demand curve facing the firm under each other's competition is a downward spiral, that is, if he wants to sell more, he must lower his price. The demand curve or the AR curve under dictatorship also has a sloping slope, but there is a difference between the required curves facing each other under independent competition and independence. The demand for 'one competitor' is more flexible than the 'monopolist' demand curve, because there is **no proximity to the total assets.**

So, as we know one just needs an espresso maker and some beans; entering the market is easy. But in order to be successful, you need something different - part of self-determination. The coffee market can be seen as Monopolistic because the market can diversify products, allow firms to make independent production decisions, and enable new companies to easily enter the market during the recession. In each Monopolistic Competition customers who have the same product selection in stores are usually close to each other.

The coffee shop industry is an independent competitive market; this includes a market situation where there are many large companies competing, but each company has a certain level of market power, which can find its value and ergo has a very small market share **(low concentration).** The competitive market without complete competition has its own self-governing features as well**. (Imperfect competition).**

Coffee has a very large number of retailers including hundreds of well-known international coffee chains, local coffee houses and tons of street coffee vendors. The unique feature of this type of competition is the fact that all the companies competing in this sector have the same, lower market power, but these firms are also price makers. As shown in the graph below, one can see that over time, firms produce at a level where the average income is equal to the lower cost, and they also sell at a much higher price. As a result of the profits made by these firms, new businesses are entering the sector. This is easy for new businesses to do, because in a highly competitive environment, there are very low barriers to entry, so there are low barriers to entry. Below is the chart that shows the sales of the major coffee brands in India.



Q2) How would you determine the optimal price of a sedan in India and branded coffee shop?

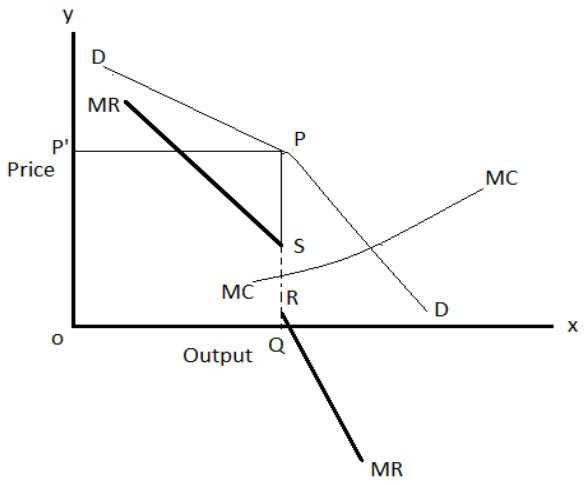
Ans2) Non-collusive oligopoly is a form of market in which few firms operate. Each firm has its price and output policy is independent of the rival firms in the market. The entire firms enable to increase its market share through competition in the market. The same is the case with car manufacturing industry which falls under non-collusive oligopoly. The firms aim to maximize their own profit and decide how much quantity is to be produced assuming that the other firms would not change their quantity supplied.

Price determination under oligopoly

1) ***KINKY DEMAND CURVE: -*** The kinky demand curve model tries to explain that in non-collusive oligopolistic industries there are not frequent changes in the market prices of the products. The demand curve is drawn on the assumption that the kink in the curve is always at the ruling price. The reason is that a firm in the market, supplies a significant share of the product and has a powerful influence in the prevailing price of the commodity. Under oligopoly, a firm has two choices:

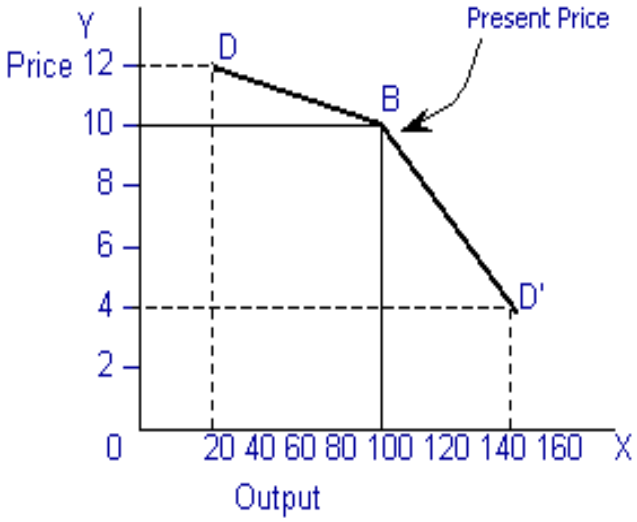
(a) The first alternative is that the firm will ***increase the price*** of the merchandise. every company within the trade is totally awake to the very fact that if it will increase the value of the merchandise, it'll lose most of its customers to its rival. In such a case, the higher a {part of} demand curve is additional elastic than the part of the curve lying below the kink.

(b) The second option for the firm is to ***decrease the price.*** In case the firm lowers the price, its total sales will increase, but it cannot push up its sales very much because the rival firms also follow suit with a price cut. If the rival firms make larger price cut than the one which initiated it, the firm which first started the price cut will suffer a lot and may finish up with decreased sales. The oligopolists, therefore avoid cutting price, and try to sell their products at the prevailing market price. These firms, however, compete with one another based on quality, product design, after-sales services, advertising, discounts, gifts, warrantees, special offers, etc.



The above diagram illustrates the situation of oligopolist A and his demand curve DD if the other firms all follow firm A's lead in raising and lowering prices. Thus, the firm's demand curve has the same elasticity as the industry's DD curve. The optimum price for the collusive oligopolist is shown at point Ton DD just above point S. This price is identical to the monopoly price, it is well above marginal cost and earns the colluding oligopolists a handsome monopoly profit.

The Kinky demand curve is further explained in the following diagram:

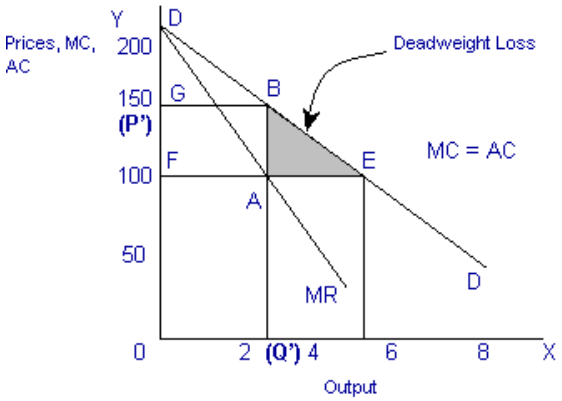


In the above diagram, the demand curve is made up of two segments DB and BD'. The demand curve is kinked at point B. When the price is Rs. 10 per unit, a firm sells 100 units of output. If a firm decides to charge Rs. 12 per unit, it loses a large part of the market and its sales come down to 20 units with a loss of 80 units. In case, the producer lowers the price to Rs. 4 per unit, its competitors in the industry will match the price cut. Its sales with a big price cut of Rs. 6 increases the sale by only 40 units. The firm does not gain as its total revenue decreases with the price cut.

ECONOMIC COSTS OF IMPERFECT COMPETITION AND OLIGOPOLY:

(a) Cost of high prices and insufficient output: The monopolist, by keeping the output in small quantities, raises its price above the side costs. Therefore, the public does not get as much monopolist output as they want in terms of separate product costs and individual costs. It is similar to the oligopoly and monopolistic competition.

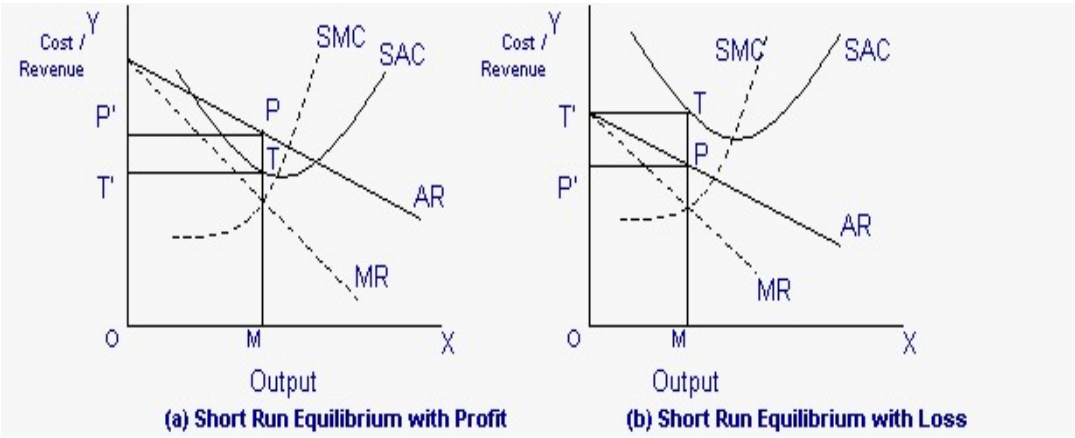
(b) Measuring waste from incomplete competition: Monopolists cause economic waste by reducing productivity. If this industry is competitive, then equity can be achieved when MC = P is in position E. Under total competition, the industry average is about 6 for 100. A person in charge of a single country can set his or her MC equal to MR (not in P), subtracting equals from Q = 3 and P = 150. GBAF is a one-person benefit, which equates to non-profit equity. Economists estimate economic damage from losses in terms of losses; the term means a loss of real income arising from royalty alone, taxes and rates, taxes, or other impairments. Loss of efficiency is the vertical distance between the desired curve and the MC curve. The total loss of deadweight from the monopolist release limit is the sum of all such losses represented by the ABE gray triangle:



In the above diagram, DD curve represents the consumers' marginal utility at each level of output, while the MC curve represents the opportunity cost of the devoting production to this good rather than to other industries. For example, at Q = 3, the vertical difference between B and A represents the utility that would be gained from a small increase to the output of Q. Adding up all the lost social utility from Q = 3 to Q = 6 gives the shaded region ABE.

Price determination under monopolistic competition: -

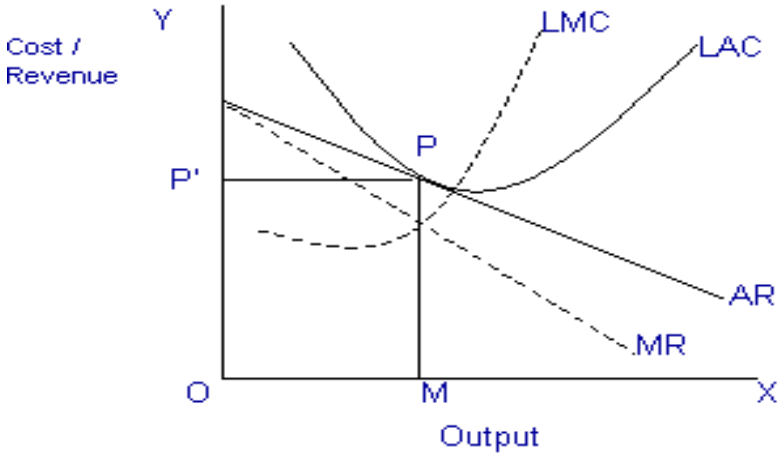
The coffee brand industry lies under monopolistic competition, the firm will be in equilibrium position when marginal revenue is equal to marginal cost. So long the marginal revenue is greater than marginal cost, the seller will find it profitable to expand his output, and if the MR is less than MC, it is obvious he will reduce his output where the MR is equal to MC. In short run, therefore, the firm will be in equilibrium when it is **maximizing profits, i.e., when MR = MC.**



In the above diagram, the short run average cost is MT and short run average revenue is MP. Since the AR curve is above the AC curve, therefore, the profit is shown as PT. PT is the supernormal profit per unit of output. Total supernormal profit will be measured by multiplying the supernormal profit to the total output, i.e., PT × OM or PTT'P' as shown in figure (a). The firm may also incur losses in the short run if it is facing AR curve below the AC curve. In figure (b) MP is less than MT and TP are the loss per unit of output. Total loss will be measured by multiplying loss per unit of output to the total output, i.e., TP × OM or TPP'T'.

(b) Long Run Equilibrium: Under monopolistic competition, the supernormal profit in the long run is disappeared as new firms are entered into the industry. As the new firms are entered into the industry, the demand curve or AR curve will shift to the left, and therefore, the supernormal profit will be competed away, and the firms will be earning normal profits. If in the short run firms are suffering from losses, then in the long run some firms will leave the industry so that remaining firms are earning normal profits.

The AR curve in the long run will be more elastic, since many substitutes will be available in the long run. Therefore, in the long run, equilibrium is established when firms are earning only normal profits. Now profits are normal only when AR = AC. It is further illustrated in the following diagram:



Long Run Equilibrium in Monopolistic Competition

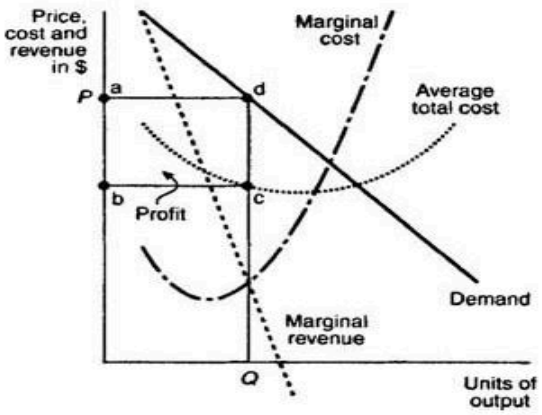
Q3) Would high market prices of cars and branded coffee cause other firms also to enter the market? What would be the implication in the long run?

Ans 3) Car manufacturing firms fall under oligopoly market, wherein, there are high boundaries i.e., no firm can without much of a stretch enter or leave the market since it's expensive or hard for the adversaries to enter the market. The main hindrances are economies of scale, licenses, admittance to costly and complex innovation, and vital activities by occupant firms intended to debilitate or obliterate new participants. There are a lot more hindrance firms face to enter in an oligopolistic rivalry which incorporate, unique tax breaks to existing firms, patent insurances, solid brand character, client steadfastness, and high client exchanging costs. Different obstructions incorporate the requirement for new organizations to get licenses or administrative leeway before activity.

Assuming there is an increment in the costs of vehicles, there will be expansion underway. Notwithstanding, these financial benefits draw in different firms to enter the market. Passage of numerous new firms causes the market supply bend to move to one side. As the inventory bend movements to one side, the market value begins diminishing, and with that, monetary benefits succumb to new and existing firms. On the off chance that there are still benefits on the lookout, passage will keep on moving inventory to one side. This will stop at whatever point the market cost is driven down to the zero-benefit level, where no firm is procuring monetary benefits. to the new yield level where P = MR = MC (This is the condition under short run) and the short fled by switching this cycle.

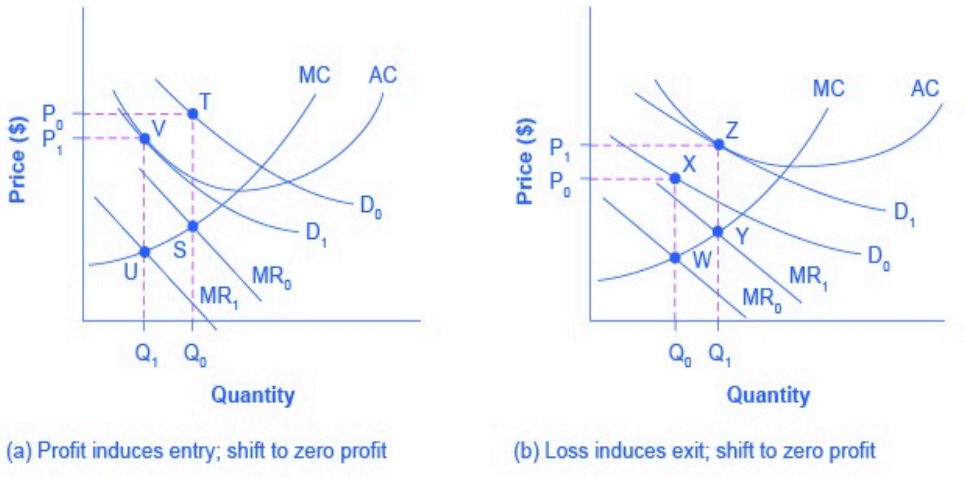
Assume that the market is over the long-haul equilibrium, however, the demand decreases, and with that, the market value begins falling. The current firms in the business are presently confronting a lower cost than previously, and as it will be beneath the normal expense bend, they will currently be making financial losses. A few firms will continue with P = MR = MC, as long as they can take care of their normal variable costs Some organizations will have to shut down quickly as they won't take care of their normal variable expenses and will at that point just cause their fixed expenses, limiting their misfortunes.

Exit of numerous organizations causes the market supply bend to move to the left. As the supply curve moves to the left, the market value begins rising, and monetary misfortunes begin to be lower. This cycle closes at whatever point the market value ascends to the zero-benefit level, where the current car manufacturing firms are not running in losses but are at a zero-profit level. Accordingly, while a perfectly competitive car manufacturing firm can acquire benefits in the short run, over the long run the cycle of passage will push down costs until they arrive at the zero-profit level.



Coffee chains fall under the market alone, which is why they do not face barriers to market entry. Basically, a competitive market alone has the freedom to enter and exit, but firms can separate their products. Therefore, they have an inelastic demand curve so they can set prices. Firms make regular profits over time but can make more profit in the short term. So, in the long run, the market will compete, the firms make regular profits.

If there is an increase in coffee prices, more firms are starting to enter the market and the demand for the given price of any firm will go down, and the company's visible demand curve will move to the left. As the company's visible demand curve shifts to the left, its limited cash curve will switch to the left, too. Exchanging foreign income will change the value-added option that the firm chooses to produce, because the payable amount will be equal to the extra costs at a lower cost.



As we can observe from figure (a),
At P0 and Q0, the monopolistically competitive firm shown in this figure is making a positive economic profit. This is clear because if you follow the dotted line above Q0, you can see that price is above average cost. Positive economic profits attract competing firms to the industry, driving the original firm's demand down to D1. At the new equilibrium quantity (P1, Q1), the original firm is earning zero economic profits, and entry into the industry ceases.

However, in figure (b), the opposite occurs. At P0 and Q0, the firm is losing money. If you follow the dotted line above Q0, you can see that average cost is above price. Losses induce firms to leave the industry. When they do, demand for the original firm rises to D1, where once again the firm is earning zero economic profit.

Unlike a monopoly, with its high barriers to entry, a monopolistically competitive firm with positive economic profits will attract competition. When another competitor enters the market, the original firm's perceived demand curve shifts to the left, from D0 to D1, and the associated marginal revenue curve shifts from MR0 to MR1 (as shown in figure (a). The new profit-maximizing output is Q1 because the intersection of the MR1 and MC now occurs at point U. Moving vertically up from that quantity on the new demand curve, the optimal price is at P1.

The long-run equilibrium is shown in the figure at point V, where the firm's perceived demand curve touches the average cost curve. When price is equal to average cost, economic profits are

zero. Thus, although a monopolistically competitive firm may earn positive economic profits in the short term, the process of new entry will drive down economic profits to zero in the long run. A zero economic profit means the firm's accounting profit is equal to what its resources could earn in their next best use. Figure (b) shows the reverse situation, where a monopolistically competitive firm is originally losing money. The economic losses lead to firms exiting, which will result in increased demand for this firm, and consequently lower losses. Firms exit up to the point where there are no more losses in this market, for example when the demand curve touches the average cost curve, as in point Z. In the long run, entry and exit will drive these firms toward a zero economic profit outcome. However, the zero economic profit outcome in monopolistic competition looks different from the zero economic profit outcome in perfect competition in several ways relating both to efficiency and to variety in the market.

From the above observations we can infer that it is relatively difficult to enter in the oligopolistic market as compared to monopolistic market due to high barriers. However, in both the market structures, the firms will earn zero economic profit in the long run.

Q4) Compare the market power enjoyed by firms under both the categories.

Ans4) Since the Maruti Suzuki Swift Dzire is the company's best-selling city, we have selected it as our main product in the car manufacturing sector.

In the event of a Maruti Suzuki swift Dzire the elasticity of the demand will increase (e> 1) because a slight increase in its price will lead to a significant decrease in the demand. There is an increase in prices from 2018-2019 to 2019-2020, due to a number of factors including temporary stock adjustments and as stated by Maruti Suzuki speaker "due to two days of closure due to elections and adjusting our production to harvest City over Amaze as the waiting period of the city is very high.

A complete product change in 2018 has changed prices and sales have been precisely the 1.2-liter Dual Jet Dual VVT petrol engine in Dzire has been refined. The refining of the engine provides not only performance but also efficiency of fuel. The Dzire petrol engine gives

23.26kmpl mileage (ARAI-Certified) when you are attached to a manual gearbox, and 24.12kmpl mileage (ARAI-Certified) when combined with automatic gearboxes. As customers are attracted by miles of car it automatically increases sales.

Year	Sales (in lakhs)	Price (lakhs)
2018-19	2.5	5.45
2019-20	1.8	5.83

(The figures illustrated are estimates only)

Price elasticity of demand = $\frac{dQ/Q}{dP/P}$

$$= \frac{(1.8-2.5)/2.5}{(5.83 - 5.45)/5.45}$$

$$= -\frac{(0.7)/2.5}{(0.38)/5.45}$$

E_d = -4.05 approx.

Absolute value= |-4.05|

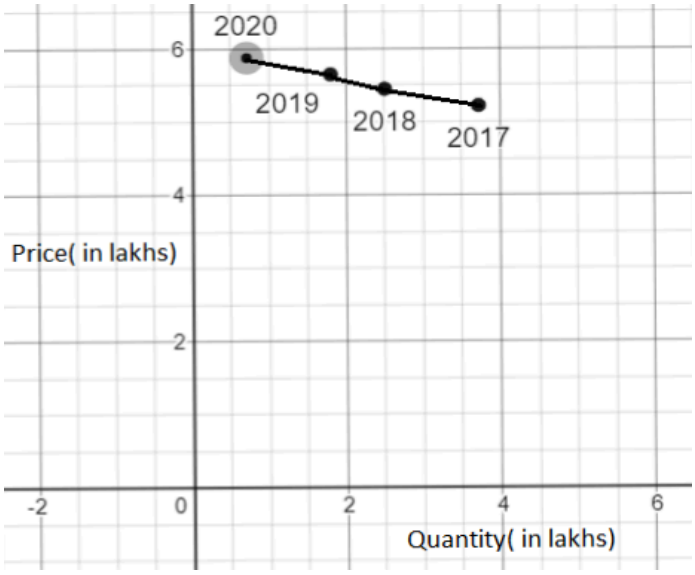
= 4.05 approx.

Or

Lerner's Index= $-1/E_d$ (where E_d denotes price elasticity of demand)

= -1/-(4.05)

= 0.246



.

Therefore, from the above figure, the price stability of demand is expanding i.e. (e> 1). Since e>1 (absolute value) the price elasticity of demand is highly elastic and will fall under complimentary goods (negative cross elasticity of demand). As we can observe that the Lerner's index is 0.246 which is close to 0 and thus it enjoys very little market power. Therefore, there will be a significant decrease in the required quantity. With the increase in the price of Dzire, the buyer will move to another good one, namely Hyundai Xcent, Tata tigor, Honda waves with the same price and options for milage. Therefore, these other cars have increased their sales by at least 6000-7000 units, with Hyundai aura launching their first launch in 2019 offering more options and features at a lower price than Dzire which also led to sales. As of 2019 there has been a complete decline in GDP, so overall general consumer income levels have also declined, and unemployment has also seen an increase. Therefore, the automotive industry had a complete economy. But some companies have been able to have stable sales or manage stable sales.

Year	Sales (Tonnes)	Price (Rs)
2018-19	46,469.9	180
2019-20	44,343.5	200

(The figures illustrated are estimates only)

The coffee market in India is fiercely competitive. Too many players are trying to compete and go out and negotiate. Not surprisingly, analysts and journalists have been wondering why Starbucks was so embarrassed about its entry into India, despite reports that India's coffee market is growing rapidly with domestic and international products entering and gaining market share quickly. India was established as a Starbucks country if over the past decade, sensible choices have been given its size and expected growth estimates. Coffee shops grew in popularity with the increase in home coffee consumption by almost 80% which occurred over the past decade. Market entry into cafes is expected to grow by 30% over the next five years and the top 24 cities account for 70% of new additions. Although consumption increased by about seven percent each year, in part due to the growing coffee culture and the widespread practice of coffee drinking throughout India. As we know that Starbucks has become the most popular coffee brand in India, so any drop in price can affect market structure and directly affect consumer preferences. If we look at the situation in northern India, people tend to use tea and coffee otherwise, so if there is a slight change in the prices of coffee sales can change as much as there is tea as an alternative. This situation can be illustrated by an example.

Coffee v/s Tea North India sales: -

Year	Coffee Sales (Tonnes)	Coffee Price (Rs)	Tea Sales (Tonnes)	Tea Price (Rs)
2018-19	46,469.9	180	47,842.8	110
2019-20	39875.2	200	52,347.8	114

(The figures illustrated are estimates only)

Price Elasticity of Demand for coffee = $\frac{dQ/Q}{dP/P}$

$= -\frac{6594.7/46,469.9}{20/180}$

$E_d = -1.27$

Absolute value= |-1.27|

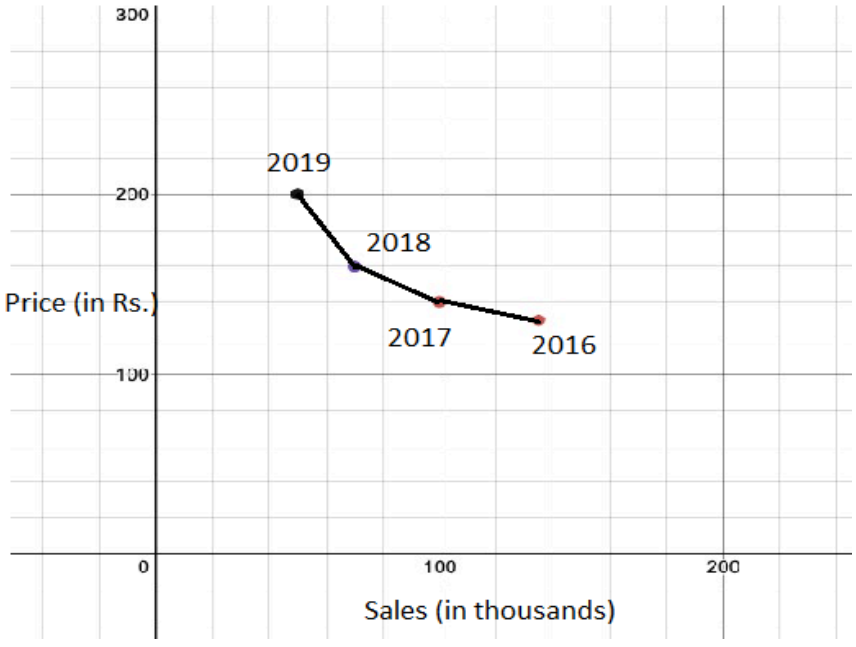
= 1.27 approx.

Lerner's Index= $-1/E_d$ (where E_d denotes price elasticity of demand)

= -1/-(1.27)

= 0.787

Since the price elasticity of demand of coffee is greater than 1 (absolute value) and will fall under complimentary goods due to negative cross elasticity of demand, it proves to be relatively elastic. Also, the Lerner's Index is coming out to be 0.787 which is closer to 1 so it does enjoy little market power. The above scenario clearly shows that tea and coffee are substitutes for each other, and a slight change in the price of one item can directly affect the demand for another. If the price of coffee increases for any reason, then people will switch to tea as it acts as a substitute for coffee. From the table above, one can clearly see that there has been a small price change during the period from 2018 to 2020, because for a while people decided to change their preferences and start drinking tea. Drawing a ratio of sales of coffee and tea, e.g., 1: 1 in 2018 to 1: 1.3 in 2020; one can conclude that a change in the price of one asset will affect the demand for another asset (return positive).



Coffee Sales in South India: -

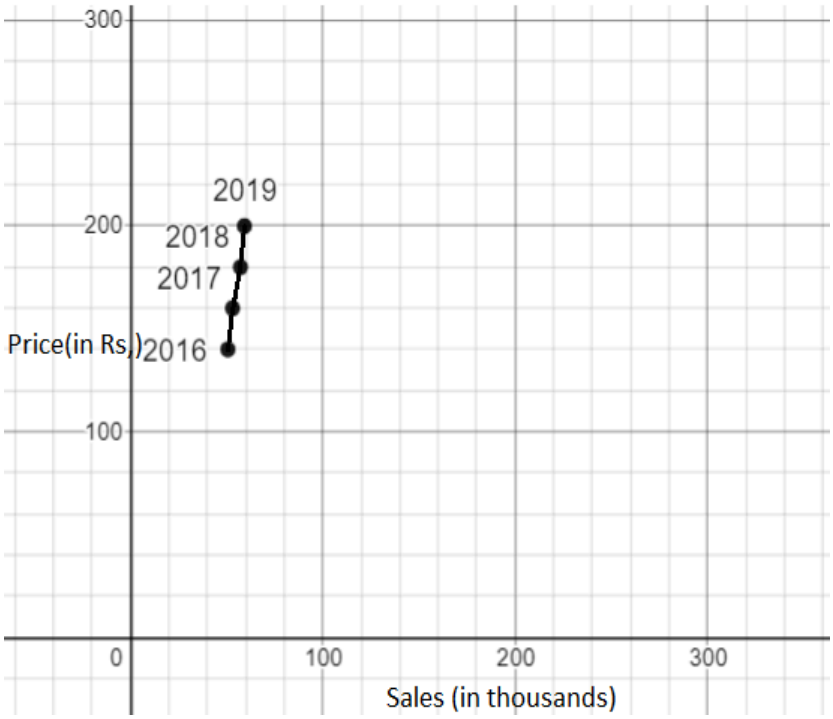
Year	Coffee Sales (Tonnes)	Coffee Price (Rs)	Tea Sales (Tonnes)	Tea Price (Rs)
2018-19	57,263.2	180	35,265	110
2019-20	59,289.9	200	36,351	114

(The figures illustrated are estimates only)

Price elasticity of demand for Coffee = $\frac{dQ/Q}{dP/P}$

$= \frac{2026.7/57263.2}{20/180}$

$E_d = 0.31$



As we can see from the table above that in the year 2019-20 when the price of coffee increased from Rs 180 to 200 the demand/ coffee sale did not change providently because consumers in southern India prefer coffee even though there is a substitute for a product like tea. People in southern India tend to lean towards coffee as there are many coffee buyers down there, which is why the impact was not small. Therefore, from the above figure we have seen that the price elasticity of demand for coffee is less than 1 and thus it falls under substitute goods (positive cross elasticity of demand), and people are not accustomed to switching to another hot drink. The existing firms already have the market power since there is no other substitute.

From the two categories above, we can say that the consumer in North India owns a coffee shop and therefore acts as an extension (e> 1) while in South India, coffee is a great base other than the other main materials that can be used because it is not sticky (e <1).

When we compare the two industries, car manufacturers and coffee shops, we can see that they enjoy different market power. In the case of car manufacturers, the elasticity of demand is greater than one (e>1) throughout India and thus it is elastic. There is greater competition among companies due to readily available substitutes. Market power is distributed evenly among the companies. Consumers have little options to switch to, but the substitutes provided are highly competitive due to which it is easy for consumers to switch to another option as mentioned above. In the coffee shop industry, the elasticity of demand defers in different regions of India. As calculated, the elasticity of demand is greater than one in the Northern region and thus it is relatively elastic while in the Southern region it is less than one and thus relatively inelastic. North India has a substitute for coffee like tea while in South, coffee is a staple and thus it does not affect its sales. The market power enjoyed by the coffee shops is thus greater in South when compared to the North.

References

1) https://opentextbc.ca/principlesofeconomics/chapter/10-2-oligopoly/#:~:text=The%20firms%20will%20expand%20output,shown%20in%20the%20next%20figure

2) https://prezi.com/i4vsfq5trnrf/monopolistic-competition-coffee-industry/#:~:text=The%20coffee%20market%20can%20be,market%20during%20economic%20down%20turns.&text=All%20the%20other%20producers%20of,2.3%25%20of%20the%20market%20share

3) https://courses.lumenlearning.com/suny-microeconomics/chapter/monopolistic-competitors-and-entry/

4) https://opentextbc.ca/principlesofeconomics/chapter/10-2-oligopoly/

5) https://www.economicsonline.co.uk/Business_economics/Oligopoly.html

6) https://www.economicsdiscussion.net/monopolistic-competition/price-output-equilibrium-under-monopolistic-competition/3753