Managerial Economics
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Lecture - 30
Monopolistic

We will start our discussion today with Bilateral Monopoly. So, if you remember in the previous session, we talk about a market form which is known as Monopsony, and it is in the other side, it is not on the basis of the seller; it is on the basis of the single buyers, and this form of market is known as monopsony, because there is only one buyer and there are number of sellers into that.

Now, we will take a situation, where there is only single buyer and single seller, how generally, the price and output determination is done, or may be how this equilibrium price is obtained; because there is a single seller and single buyer, who influences the price more; who decides the output more; that we will discuss in case of a bilateral monopoly.

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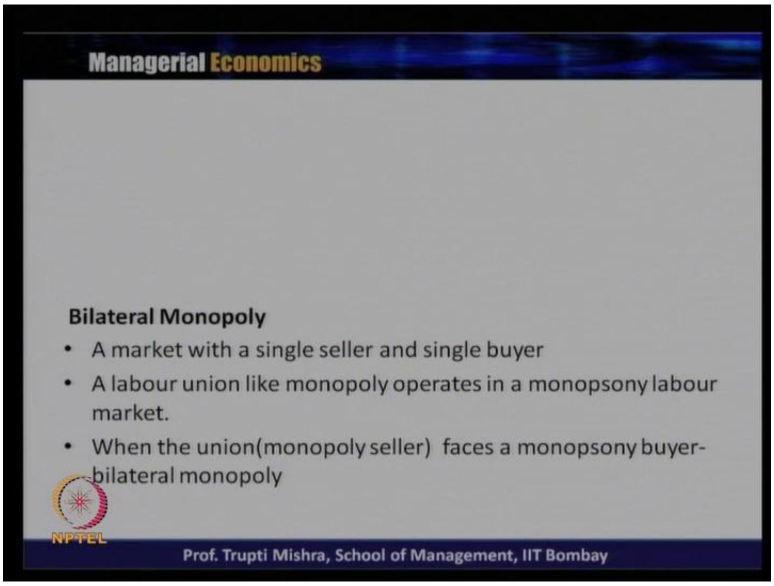

So, bilateral monopoly is one, where there is a single seller and single buyer. We can call it a labour union like monopoly operates in a monopsony labour market. That is the typical example of a bilateral monopoly. When the union act as a monopoly seller faces a monopsony buyer, that is the one single plant, who generally employs all the labourers from this union, they become the buyer of this.

So, seller is the labour union that is single seller, and the buyer is the single plant or single industry who generally gives employment to the labour from the labour union. So, bilateral monopoly is a market with single seller and single buyer. Take a typical example like a labour union like monopoly operates in a monopsony labour market, and when the union that is monopolist faces the monopsonist, that is single large industry or single large plant, who employs them; it is generally the case of a bilateral monopoly.

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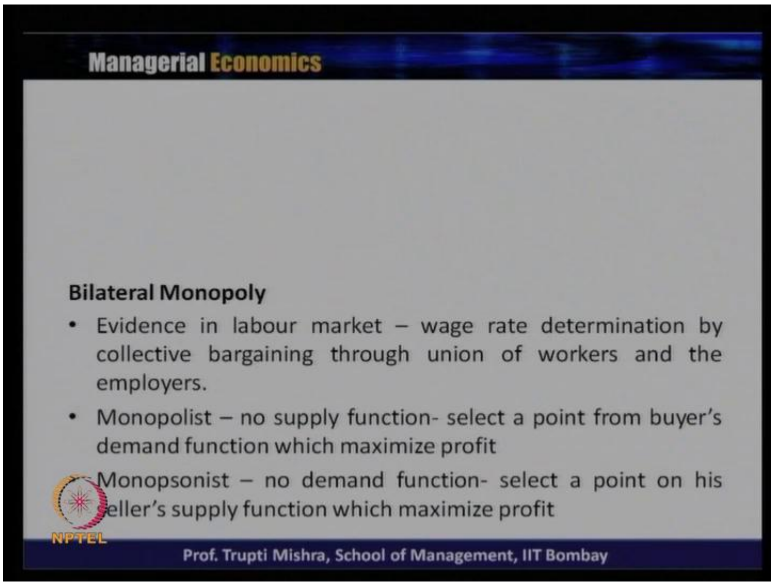

Generally, we find the evidence of bilateral monopoly in case of a labour market, because that only we can organize into the monopolist buyer and the monopolist seller. So, wage rate determination is generally in this case, how the wage rate is decided. The wage rate determination is by collective bargaining through the union of worker and the employer. It is now strictly on the basis of the demand and supply, because there is a single seller and single buyer. So, the evidence in the wage rate is decided by collective bargaining through the union of worker and the employer. This shows that, if someone is having a more bargaining strength, they generally influence price or the wage rate more as compared to the other.

But ideally, if you look at the monopolist depend on monopsonist, to generally maximize the profit, and monopsonist depends on monopolist to maximizing their profit. As you know, that monopolist has no supply curve; there is an absence of supply curve in the monopoly. So, there is no supply function and generally the monopsonist selects a point from the buyers demand curve, which maximizes the profit. There is no supply curve for monopolist, and to maximize the profit generally, they select a point from the buyers demand curve. And similarly, from monopsonist point of view also, there is no demand curve, there is an absent of demand curve in the monopsony market and they select a point on his seller's supply function which maximize the profit.

So, one is, in case of monopolist there is no supply function, to maximize the profit they select a point from the buyers demand function. And in case of monopsony, there is no demand function, and in order to maximize the profit they select a point from the seller supply function and maximize the profit.

So, if you look at, there is an interdependence when it comes to maximizing the profit only monopolist, and only monopsonist influencing the price and output decision, they cannot maximize the profit and it is not possible also to independently influence the price and output.

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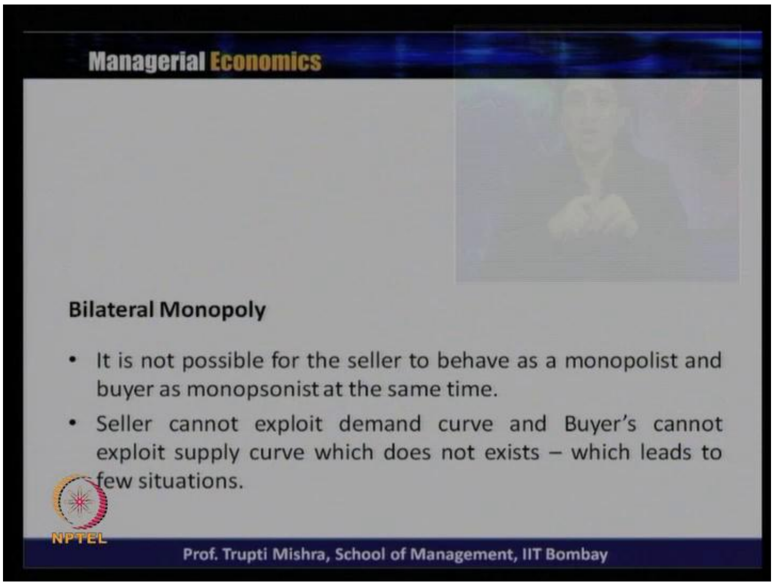

So, it is not possible for the sellers to behave as a monopolist in this kind of market and not possible also for the buyers to monopsonist at the same time. Seller cannot exploit the demand curve and buyers cannot exploit the supply curve, which does not exist and which leads to a few situations.

So, for the seller there is no demand curve as it is a case of a monopsonist market and that is the reason they cannot exploit the demand curve. Buyers since there is an absence of supply curve for the monopolist they cannot also exploit the supply curve. So, there is an absence of a situation where seller is exploiting the demand curve, when buyer is exploiting the supply curve, and that leads to few kind of situations which we can summarize.

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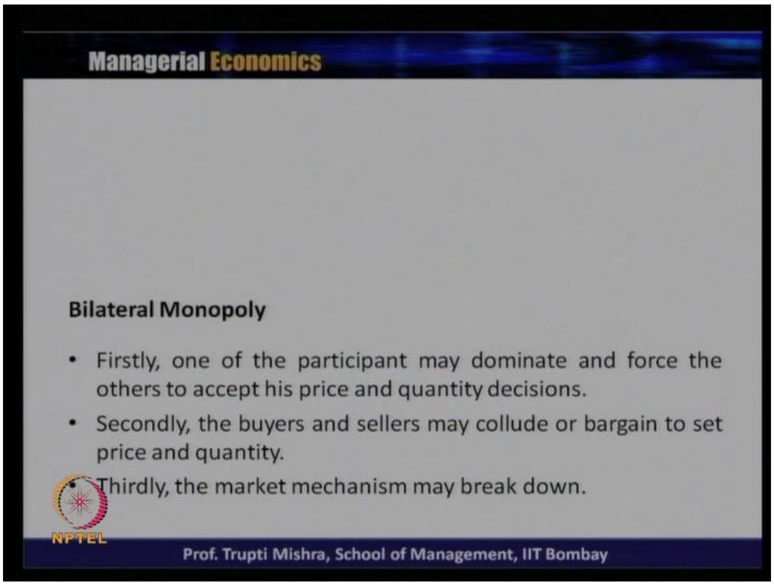

Firstly, it may happen that one of the participants either monopolist or monopsonist may dominate and force the others to accept his price and quantity decisions. So, it may happen that either monopolist will force the monopsonist to accept his price or quantity decision or monopsonist will force the monopolist to accept his price and quantity decision. Secondly, the buyers and sellers may collude or bargain to set the price and quantity. They can come to collusion and they bargain to set the price and quantity. So, they will form collusion and depend upon their bargaining strength they bargain to set the price and quantity according to their own choice.

And thirdly, if no one is able to dominate or the collusion is not taking place, the market mechanism breakdown and it may not exist as a bilateral monopoly. So, case one; one may dominate other has to follow, second both of them come to a collusion and they set their price and quantity on the basis of the bargaining, and third one, when the market mechanism will break down if none of this above two are possible.

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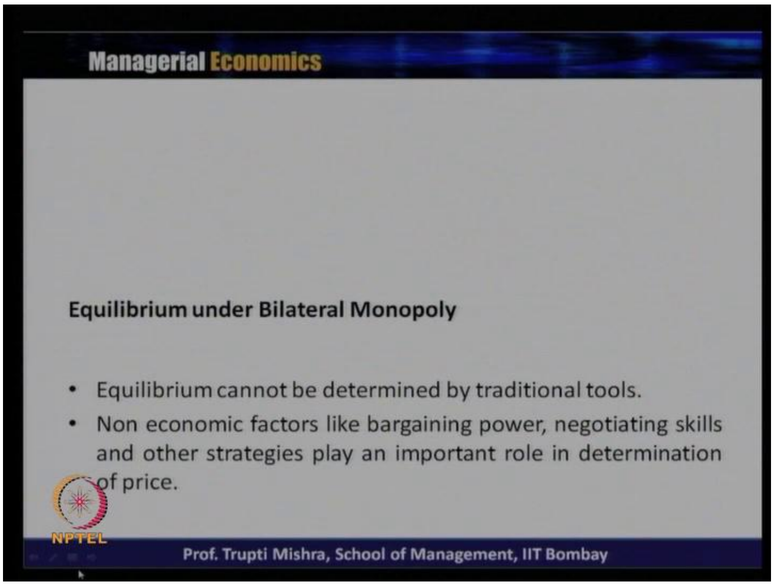

Now, how the equilibrium takes place in case of a bilateral monopoly. Equilibrium cannot be determined by the traditional tools, because there is absence of the demand curve in case of a monopsonist, and there is an absence of a supply curve in case of a monopolist. So, since demand curve and supply curve is absent for the buyers and seller, equilibrium cannot be determined by the traditional tool, that is the typical demand supply or profit maximization cannot take place through the marginal revenue and marginal cost on the basis of the price determined by the demand and supply.

So, here the economic factors like bargaining power, negotiating skill or other strategy like how to influence the, or how to force the other party play an important role in the determination of price. So, we need to do with the non economic factors like bargaining power and negotiating skills when it comes to price and output. So, if it is more bargaining strength or more negotiating strength the price and quantity go in their favor.

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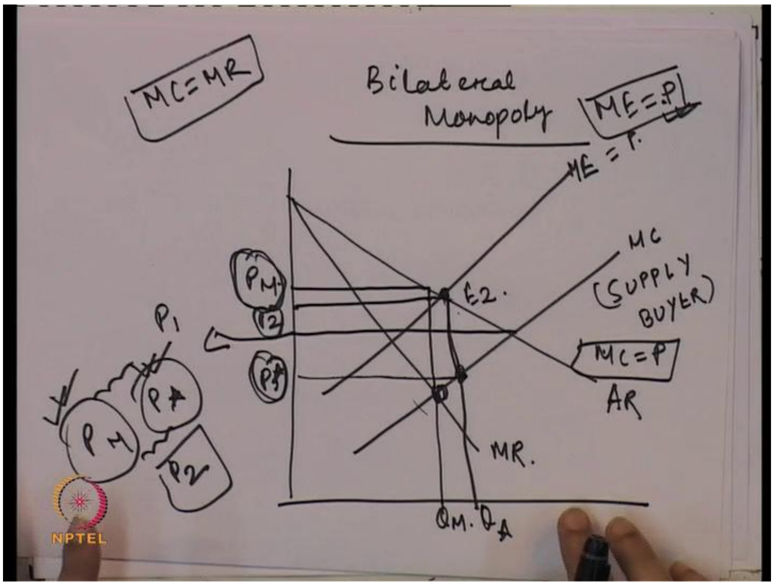

We will understand this equilibrium in a graphical format that how the equilibrium take place in case of a bilateral monopoly. In this kind of market like typical monopoly market we will get our average revenue, marginal revenue, the marginal cost, the marginal expenditure.

So, monopolist equilibrium if you look at, it is a point where marginal cost is equal to the marginal revenue and we get the corresponding monopoly price, we can call it a monopoly price. Producer cannot be the price maker as there is a single ware. So, P M even if it is a monopolist price and how we got this monopolist price, through the M C equal to M R rule, and through that we got the price to be P M and quantity is Q M. But producer cannot be the price maker as there is a single buyer. So, there we introduce the supply curve of buyer that is M C, and it is the supply for the buyers. This is the supply curve of the buyer and marginal E is equal to the P and the consumer, the buyer will purchase additional Q to maximize the profit till the time this marginal expenditure is equal to P.

So, the buyer will go on producing the additional or Q to maximize the profit till the time ME is equal to P. So, monopsonist equilibrium will be at the point E 2 and E 2 is the point where M E is equal to P. So, E 2 is the point where corresponding to that, we get the price which is equal to P 2.

Now, we have E 2, corresponding to this, this is the monopolist point, this is the monopsonist equilibrium point, and corresponding to E 2, we get price E 2, and how we get this price E 2, whether this has to be the price or may be corresponding to this, we get a point where in the M C curve, because if you look at M C, it is the again deciding point, here we get one more price level or we can call it as P star.

So, now what is the ideal level here? Ideal level may be this is the monopsonist price because this is the point corresponding to this where we get is equal to the M C. this is the monopolist price, and always through bargaining, neither they will accept this P M nor they will accept this P star. Because this is the level of price, what they will propose now is between this P M and P star. This is the monopsonist price, this is the monopolist price and they will devise a price between P M and P star, whether its P 2 or any other price. Because, that will be decided through the market, or this will be decided through the bargaining strength of both the buyers and seller that they has to charge a price which is between the monopoly price and the monopsonist price.

Now, how we get all this three price points? Point one with respect to the monopoly price that is P M, that is through M C equal to M R rule, and how we get this P star. We get through this by the supply curve of the buyer and if you remember in case of monopsonist, always the P has to be equal to the marginal cost, or they have to pay the price with respect to the supply of the input.

So, in the first case, we just identified the point where till which time the quantity level has to be produced, and that is Q star, and how we get this quantity level? We guess the quantity level where M E is equal to P, and after identifying the quantity level E 2, we will then find out what is the price, and to find the price we need to pick a point corresponding to this output level where this is equal to the M C and that is the reason we get the P star as the monopsonist price.

Now, what is the level of output now? If this is P 2 there is one more suggestion may also come where the competitive price is P 2 that is M C is equal to P, this is the competitive price. So, maybe there can also zero down on a price P 1 which is between P star and P M, and that decides on the basis of the bargaining strength of the monopolist and the bargaining strength of the monopsonist.

So, between P M and P star, they can pick up a price P1 P 2 or the number of other options over here, decided on their bargaining strength which brings some amount of the profit to both the buyers and seller.

So, typically in the bilateral monopoly since single seller and single buyer, no one will influence the price and quantity. Either one has to dominate which is not appearing when we are deciding it in graphically. Because the monopolist price is not accepted to the monopsonist, and the monopsonist price is not accepted to the monopolist. So, in this case they will try to come to a price between the price P M and P star which will give some amount of profit through their bargaining and through their collusion.

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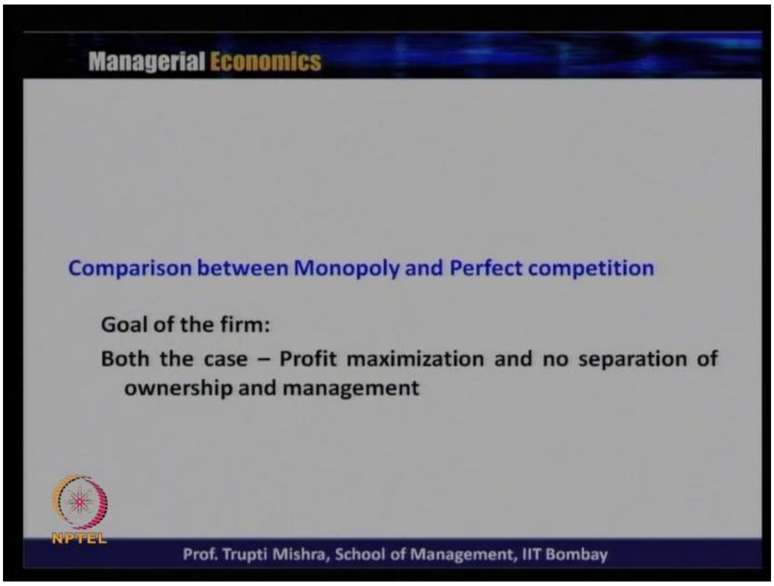

Now talk about the second situation, where ideally the price is decided on the basis of the bargaining strength of both the buyers and sellers. We have discussed so many types of monopoly, and different aspects of monopoly and previously we have also discussed about the perfect competitive market structure, we will come to a comparative studies between the perfect competition and the monopoly; how this two markets different from each other.

So, when it comes to the goal of the firm, in both these cases, the goal of the firm is the profit maximization. Whether it in case of perfect competition, or in case of a monopolist; both the cases the goal of the firm is to maximize the profit and there is no separation of ownership and the management. So, there is no difference between the ownership and management and profit maximization of the goal of the firm, which is uniform as a characteristic or feature to both the types of market, that is, perfect competition and the monopoly.

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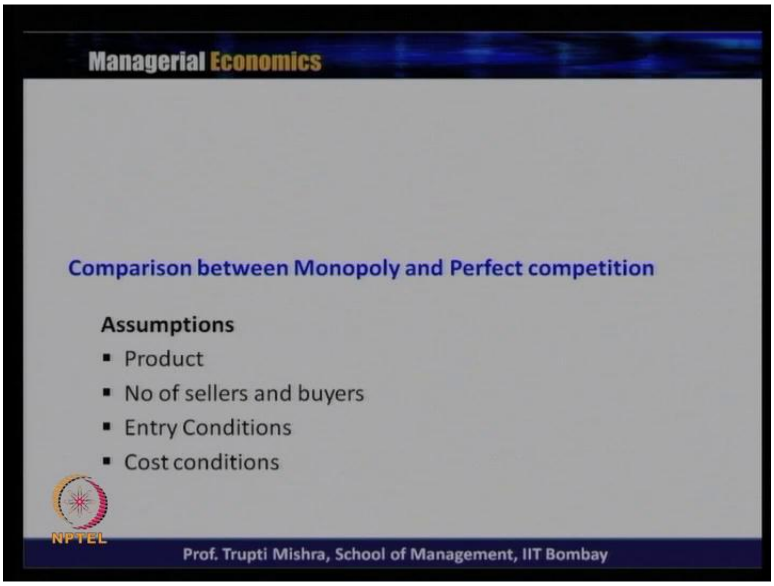

When it comes to assumption, if you look at, there is a different in the assumption that is taken by the perfect competitive market structure and the monopoly market structure. When it comes to product, since there is a single product in case of monopoly, it has to be uniform, there is no close substitute, where as in case of a perfect competition, it is a homogenous product with similar product and all the products are closely substitute to each other.

Similarly, the number of sellers and buyer in case of monopoly, the number of seller is one there are large numbers of buyers. But in case of perfect competitive market structure, there are large number of sellers and buyers. Entry condition; in case of perfect competition, there is free entry and free exit. Whereas, in case of monopoly, there is entry barrier, but the exit is easy if we are incurring a loss over there.

Then in case of cost condition, we have analyze the perfect competitive market structure, typically incase of supply curve of the perfect curve market structure in three different cost that is, constant cost, increasing cost and decreasing cost, that we have not analyzed through monopoly. But in general, if you look at, the monopolist is not conscious about the cost condition because, they can influence the price, and if the cost goes on a higher side they can always justifies and they can charge a higher price. They are the price maker.

But in case of perfect competitive market, since the price is decided by the market forces, they will always try to reduce the cost of production, so, that the profit can be more. Whenever there is an increasing cost of production, they are not charging a higher price, because price is decided by the market power.

Nevertheless it is not that the monopolist never tries to reduce the cost, but at least when they have, they are the price taker. In any case there is increase in the cost function at least they can increase the price, or supplement the increase in the cost of the production, or that they can get it from the buyers, or at the increase in the cost taken pass to the buyer in the form of increase in the cost of production or increase in the price.

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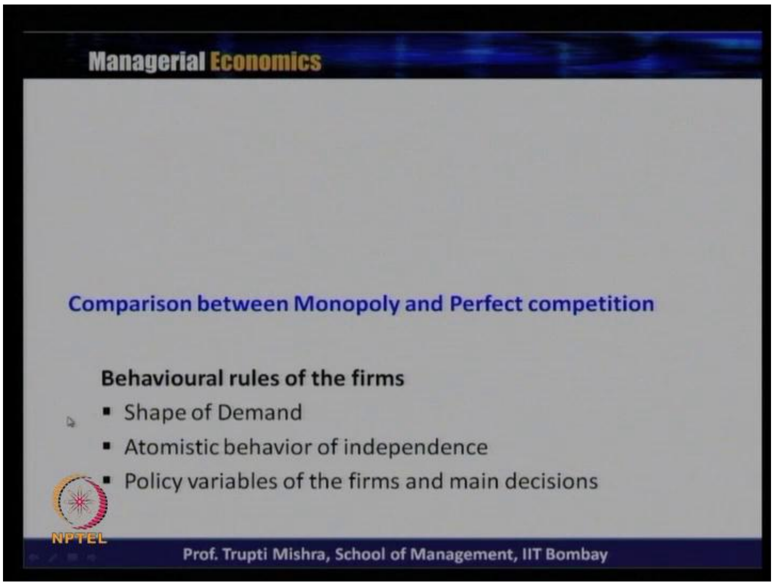

Then when it comes to behavioral rules of the firm, the shape of the demand curve in case of the monopolistic firm is downward sloping the regular demand curve, but in case of a perfect competitive market, if you look at, it is horizontal, because there is no change in the price at the same price, whatever the buyer is willing to buy they can buy and how much the seller is willing to sell they can sell. But in case of monopolist the shape of demand curve is downward sloping, and whenever he has to increase the quantity demanded he has to reduce the price.

The shape of the demand depends upon the price and quantity relationship in case of a perfect competitive market structure and the monopoly market structure. Then, the atomistic behavior of the independence that is present in case of a monopolist firm is absent in case of a perfect competitive market structure. Then, we have some policy variables in the firm and that is the main decision. If you look at this regulation, typically the regulatory, and that comes more to the monopoly. But in case of perfect competitive market it is always a free market, in which the price quantity decided by the market force and supply forces. So, more it is into a free market economy where the invisible and principle works whenever there is an imbalance that is taken care by the demand and supply.

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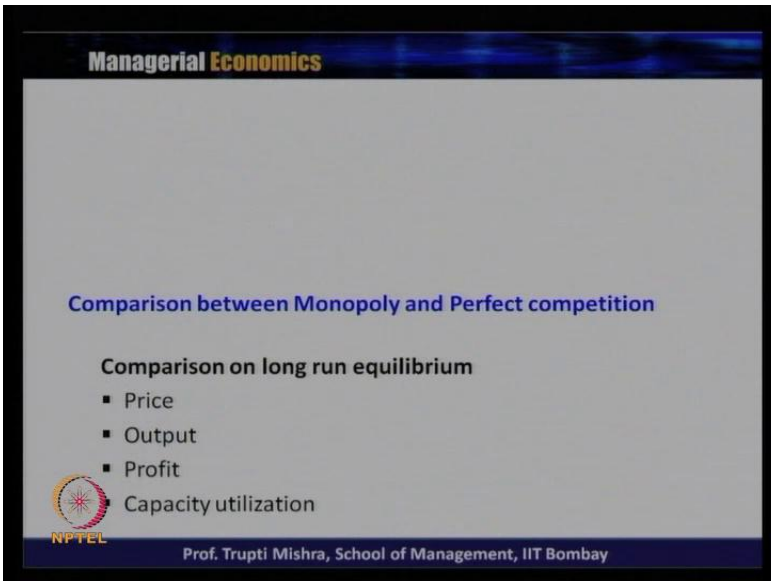

Then we have a comparison between the monopoly and perfect competition on the basis of the long run equilibrium. So, in the long run again the price is decided by the demand and supply that is following the M C and M R rule. The output if you look at again its increase at a increasing cost, decreasing of cost, or the constant cost, In case of long run in the monopoly market, all the firms they get the normal profit even if not the super normal profit, because if they are getting supper normal profit that attracts new firms to enter into the market and increase the competition. And when it comes to capacity utilization, the capacity utilization is full incase of perfect competitive market structure, because maximize the optimal quantity in case of a perfect competitive market structure it is decided by the maximum output at the minimum cost of production, and the maximum output. Generally if you look at it produces at the bottom of the minimum point of the average cost. Whereas in case of monopoly, the capacity is not fully existed and always the output is produced at the decreasing portion of the average cost and that leads to some excess capacity in case of a monopoly market structure.

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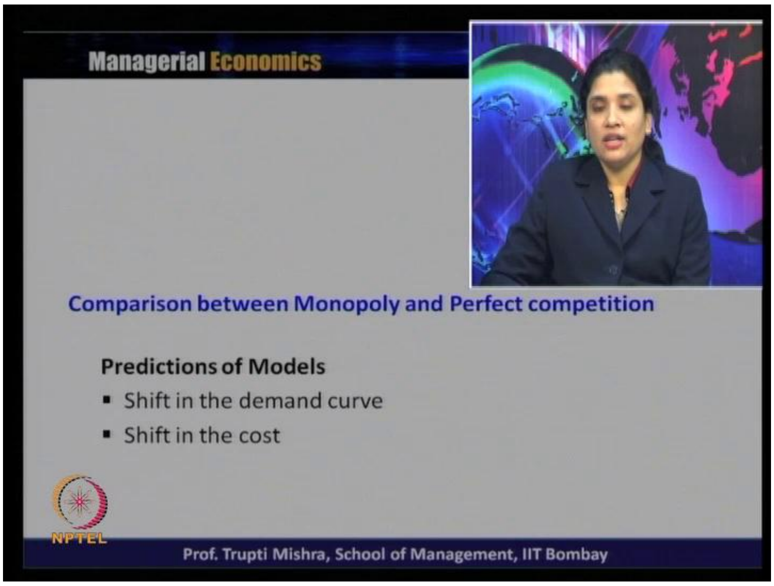

Then when it comes to prediction of module there is a shift in the demand curve or shift in the cost. If it is a fixed cost in nature, in both the cases perfect competitive monopoly market structure it will not disturb the equilibrium situation, but whenever there is an increase or decrease in the variable cost they disturb the equilibrium position.

Similarly, the change in the demand whether it is elastic or inelastic accordingly, the equilibrium position will change and also the corresponding profit maximizing output price, whether the firm is getting super normal profit or normal profit or economic loss.

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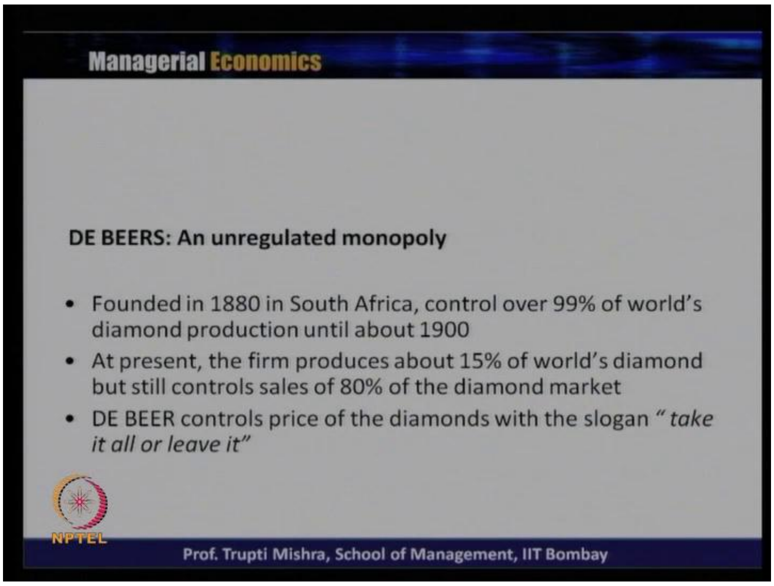

Let us take a case, take small example to understand how this unregulated monopoly or the monopoly works in case of a real world situation. As you know, Dee Beers, if you look at, they are the monopoly in diamond market. We will take a case of how Dee Beers become an unregulated monopoly and how the different act of monopolization is done by it in order to become a monopoly leader in the market.

It is founded in 1880 in South Africa and control about 99 percent of the world's diamond production until 1900. Now, at present the firm produces 15 percent of world diamond, but still controls sales of 80 percent of the diamond market. They just produce 15 percent, but still they control sales of 80 percent in the diamond market. De Beer controls the price of diamond with a slogan "take it all or live it". They are following price rigidity, they are not going to reduce the price in order to increase the quantity demanded. Their philosophy is "take it all or live it". It is up to the buyer whether they are ready to buy at that typical price or not.

If you summarize this, the fact is that, even if they were controlling the market with their production, controlling the production then, when they are not controlling the production, they are now controlling the market through the sale of eighty percent of the total share of the diamond market. So, they just produce fifteen percent, but when it comes to sale they sell more than eighty percent and that way they emerge as a monopoly market.

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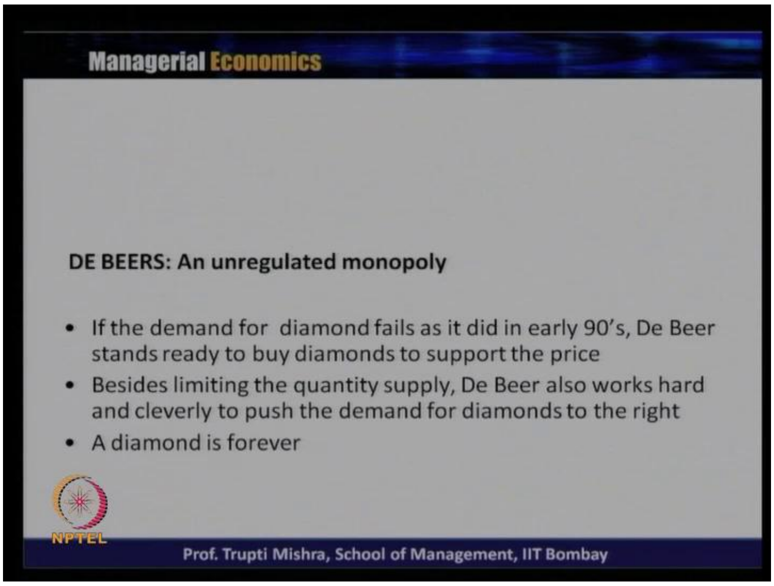

They follow the price rigidity. They never reduces the price in order to increase the price, if buyers really needed, they have to buy it in that typical price. if the demand for the diamond falls as it did in early 90s, De Beers stands ready to buy diamond to support the price. So, here it comes to the act of monopolization.

The demand for diamond decreases in 1990 and what De Beer did is, they did not want the demand to decrease, if so it will reduce the price. At that time, De Beer buys the diamond. They acted as a buyer to support the price at the same level, because if they are not buying generally the demand is decreasing that leads to decrease in the price. So, De Beer stands ready to buy diamond to support the price and this is the activity through which they still want to maintain the monopoly because they are not allowing the demands to reduce.

So, in one way they are limiting the quantity supplied and also by doing this activity they cleverly push the demand for the diamond. When there is a decreasing trend of demand for diamond in 1990 they catch a slogan that ‘diamond is forever’. They talk about the quality and durability of the product and it is a diamond when you’re buying it for life time. So, you should not think about the price, and this is how they maintain the price rigidity, quality and durability of the product.

So, if you look at De Beers, it is not a regulated monopoly through their activity, control over the supply and demand. They have become the monopoly in the diamond market.

Similarly, we have many more examples like, if you can take an example of a Microsoft, whether it is a monopoly or it is a act of monopolization, or similarly you can take Indian railway, it is a kind of regulated monopoly because there is no other player in the market and if you look at, there is also no close substitute. So, there are many other examples, what you can find there is a close resemblance of the market in the form of monopoly market.

After discussing the perfect competitive market and monopoly market, we will move into a new kind of market which is in between the perfect competitive and monopoly market structure and this is the form of imperfect competition or this is a part of an imperfect market structure.

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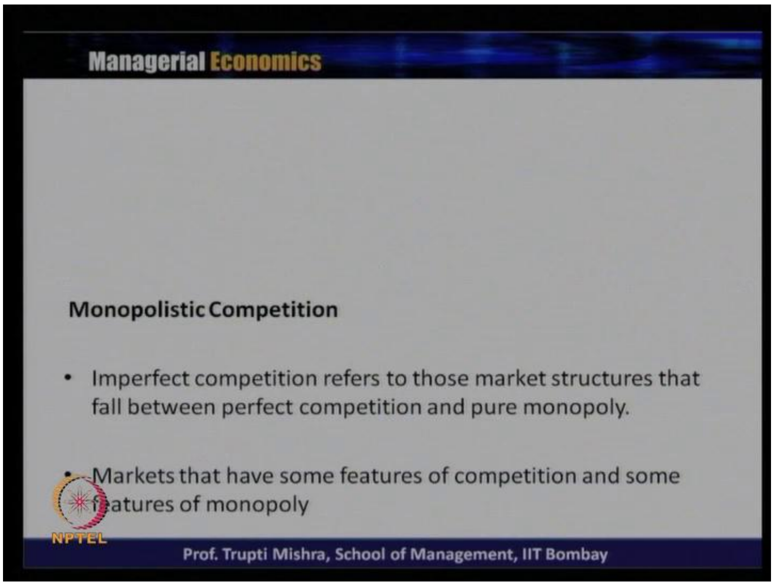
3 

Imperfect competition refers to those market structures that fall between the perfect competition and pure monopoly. It is a market structure that is strictly between the perfect competition and the pure monopoly market that have some feature of competition and some feature of monopoly. It has taken some features of a perfect competition and some features of the monopoly.

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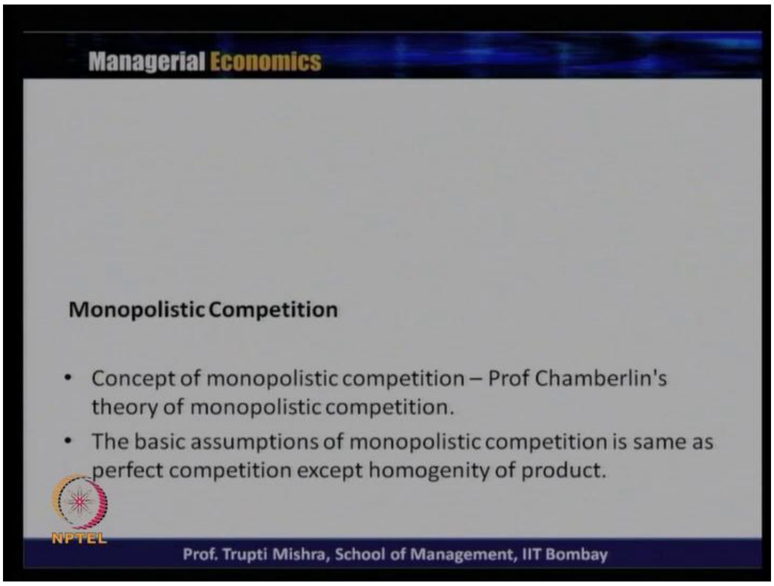

And the concept of monopolistic competition generally comes from the seminal work of Prof. Chamberlin's theory of monopolistic competition, and the basic assumption of the monopolistic competition is same as perfect competition except the homogeneity of product. If you look at, it is more close to the perfect competitive market structure because the basic assumption of the monopolistic competition is same as the perfect competition, except typically the homogenous nature of the product.

Let us discuss the features of the monopolistic competition and then we will see how it is different for a perfect competitive market structure or a monopoly market structure. There are large number of firms each satisfying a small, but not microscopic share of the market, and share of market demand is similar not identical. Because this is not a homogenous product, the share of the market demand is for similar products, not for the identical products.

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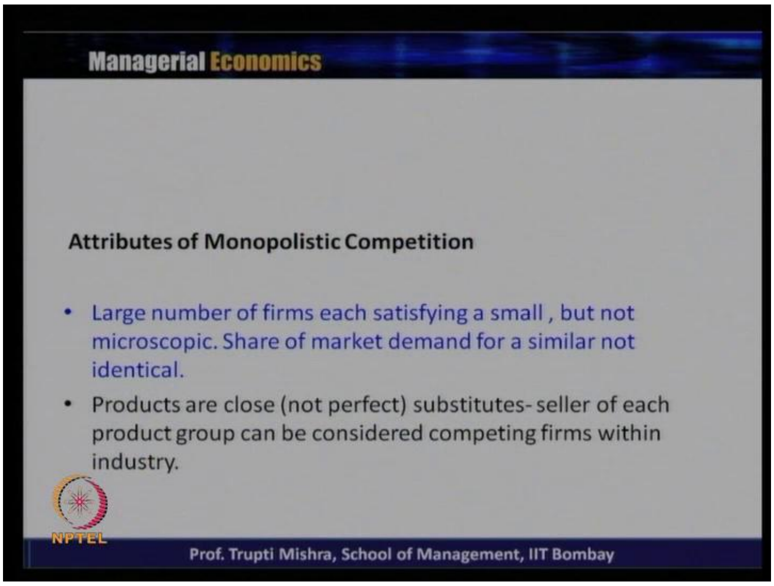

There are large number of firms each satisfying a small, but not a microscopic share. For large number of firms the share is small, but it is not very insignificant also. Products are close substitute, but they are not perfectly substitute. Each product is different from the other in terms of some of the component.

Seller of each product can be considering competing firm within the industry. So, seller of each product group that is substitute product can be consider as they consider competing firm within the industry.

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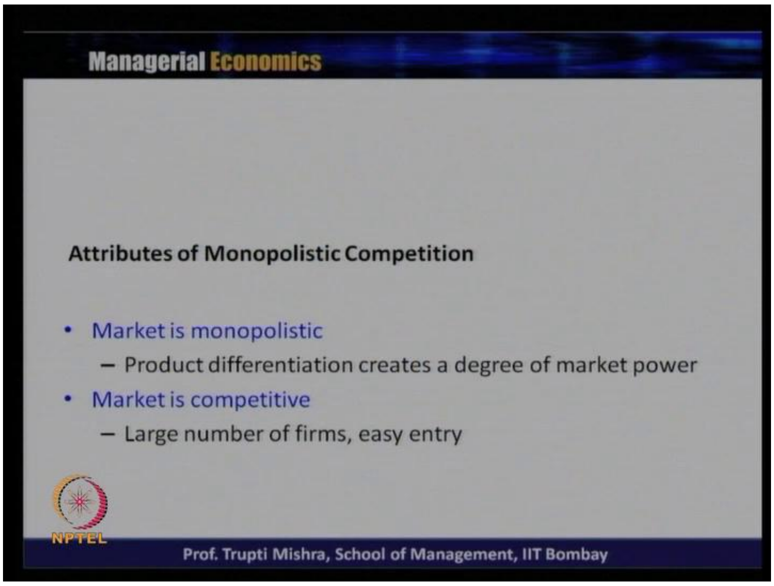

Market is monopolistic, product differentiation create a degree of the market power it is why we call a monopolistic market, because each product is different from the other product. So, when you are doing that independently each product is a single product with no close substitute and that product differentiation create a degree of the market power.

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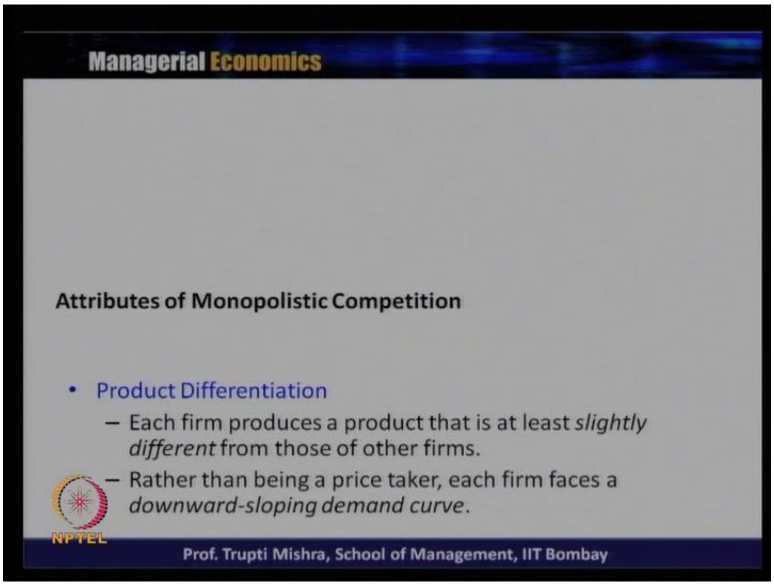

Market is competitive, because there are large numbers of firms, and there is easy entry into the market. One of the important features of the monopolistic competition is the product differentiation. And how this product differentiation makes it different, each firm produce a product that is at least slightly different from those of other firms. Rather than being price taker, each firm faces a downward sloping demand curve.

So, each firm produce a product that is at least slightly different from the other firms. And we will discuss about the parameter on what basis the product has to be different from the others, and they are not the price taker, each firm follow a downward sloping demand curve. So, whenever they have to increase the output they have to reduce the price.

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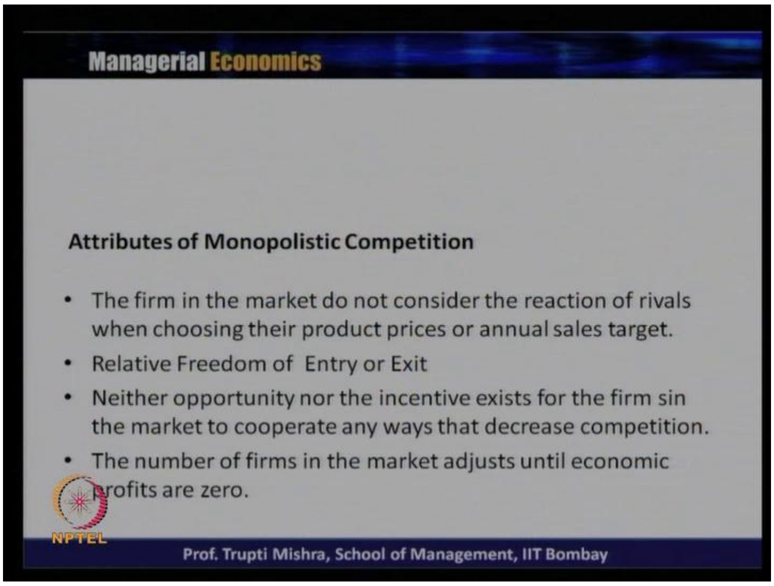

The firm in the market does not consider the reaction of the rivals when choosing their product price or annual sales target. It means the price and output decision of the firm is not getting influenced by the reaction of the rivals. There is relative freedom of entry and exit; there is no barrier as such apart from product differentiation creating as a barrier. Neither the opportunity nor the incentive exist for the firms in the market to cooperate in any way that decrease the competition, and the number of firms in the market adjust until the economic profit is 0.

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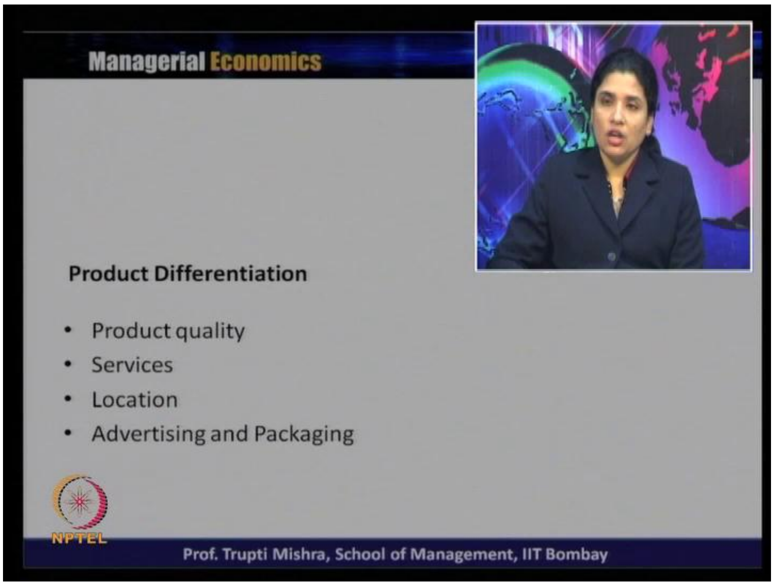

Since, we are talking about a feature product differentiation and that makes the market different from the other market structure, now we will see how the product differentiation is being practiced. The product has to be different from each other either on the basis of the product quality or in the basis of the services or in the basis of the location or in the basis of advertising and packaging.

When it is comes to product quality, may be you can take a case of a tooth paste or you can take a case of soap. You get a soap which ranges from may be 500 to 5 rupees. They are different from each other in terms of the quality, or if you can take the case of detergent powder, it ranges from 200 to 2 rupees. They are different from each other in term of the quality, the raw material that is used and also the usefulness of the product.

Similarly, for services, if you take the case of the after sale service, if you take the case of a grocery store or you take a case of a super market, now what is the service? Some super markets they do a home delivery, some will send their assistant to help you put your grocery in your vehicle, some will take your typical coupon or this entire thing. So, these are the services extended to the consumer, and the product is different from each other in terms of the service associated with the store, or service associated with the product.

Like you take the after sale service of a vehicle, or after sale service of an electronics product. For someone it is free, if you are sending your vehicle for a servicing in some store they come and pick your vehicle, in some store at least they will pick , but you need to pay charge, for someone they will just give a reminder. These are the small activities for small service given by the store or given by the specific product and that makes the product different from one to another.

For location, the location decides how they are different from each other may be the same brand shop when it is in a mall or when it is from the outskirt area, that makes the difference and that creates the product differentiation. If you take a grocery store near to the petrol bunk when the high way and the grocery store near in the nearest locality that makes the difference between the products.

For advertising and packaging, if you look at for someone the focus is more on the packaging. So, packaging has to be neat and attractive. That makes the difference if the packaging is good if you are buying the product and advertising, who is doing a massive scale of advertising and who is not doing it. So, generally if you look at the brand value it also comes from the fact that is advertising for the product and that influence the product has to be different from the other product. If it is a well known celebrity, you always feel that whatever endorses that is has to be a good product. Because the celebrity is endorsing the product, rather than endorsing the same product by someone else, there comes the product differentiation, because that takes out the consumers perception about the product, if it is celebrity it has to be good, rather than the other one who is advertising for the product.

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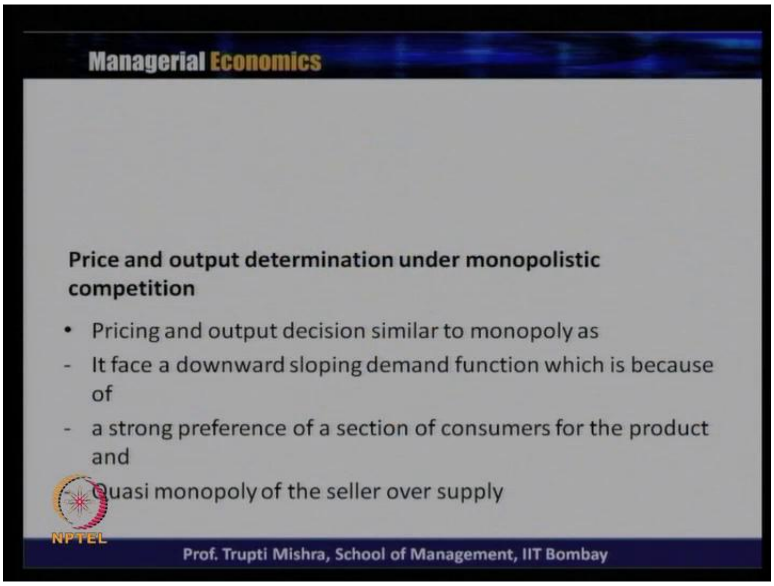

Then we will talk about the price, and output determination in case of a monopolistic competition. This is similar to the monopoly as it faces a downward sloping demand curve, which is because of a strong preference of section of consumer for the product and quasi monopoly of the seller over the supply.

So, pricing and output decision is similar to monopoly, it face a downward sloping demand function because it is a strong preference of the section for consumer for the product or typically the brand loyalty, and there is also a quasi monopoly of the seller over the supply.

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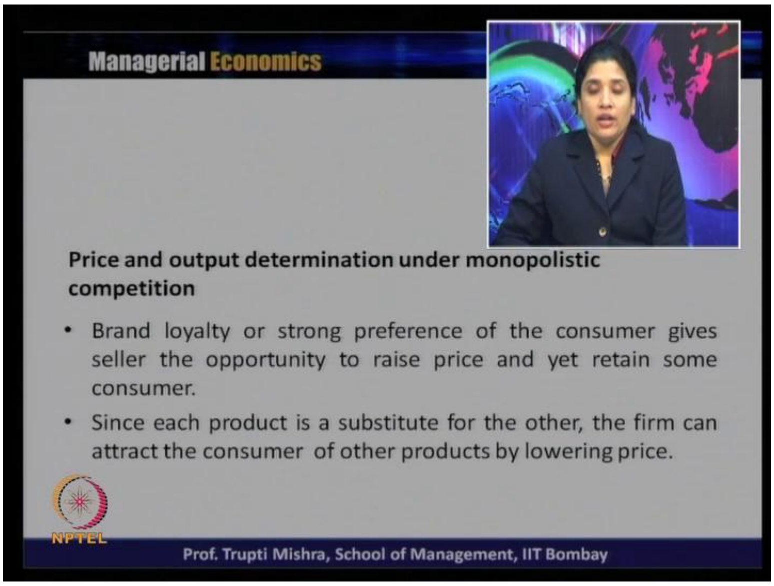

Brand loyalty or strong preference of the consumer gives seller the opportunity to raise the price and yet retain some consumer. So, brand loyalty are the strong preference of the consumer generally allow the seller to increase the price, but still the consumer buy it because there is a brand loyalty or the strong preference for it.

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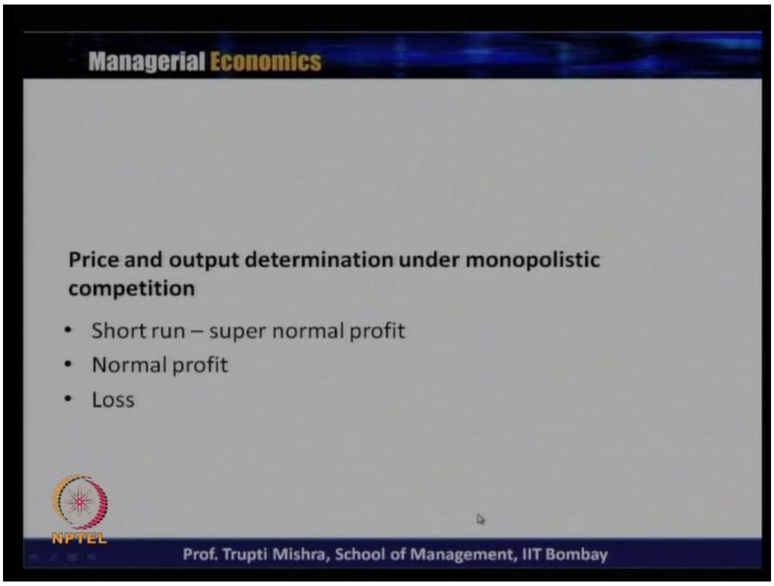

Since each product is substitute for the other, the firm can attract the consumer of other product by lowering the price, and that is why we get a downward sloping demand curve.

So, in case of short run, the monopolistic firm may get a super normal profit or they may get a normal profit or they incur a loss.

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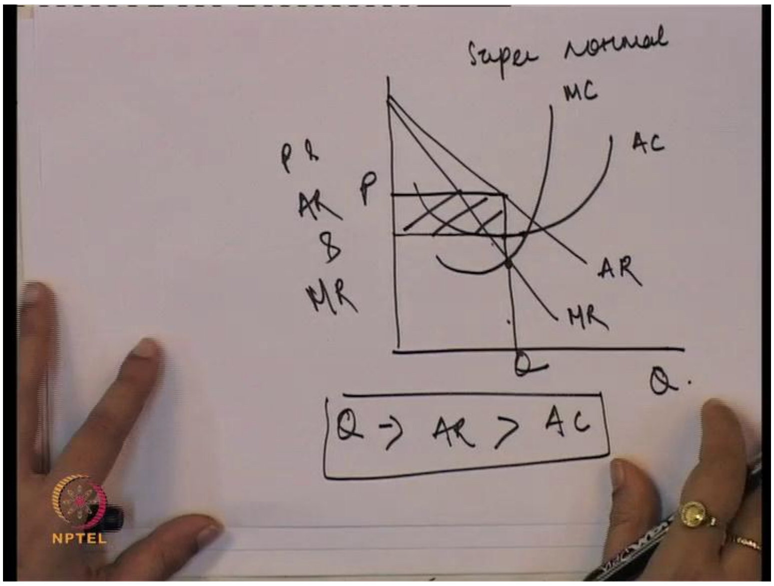

So, we will analyze where they get a super normal profit, where they get a loss and where they just get a normal profit. And if you look at this is always on the basis of the average cost and average revenue. So, this is average revenue, this is marginal revenue, here we will take Q here we will take P, average revenue and marginal revenue. We have an average cost, we have the marginal cost. We will take the point marginal cost, marginal revenue. We will identify the price, and we will identify the cost at that same level. So, this is the cost and if you look at in this case, since average revenue is greater than average cost for corresponding level of profit maximizing level of output, here the firm is getting super normal profit.

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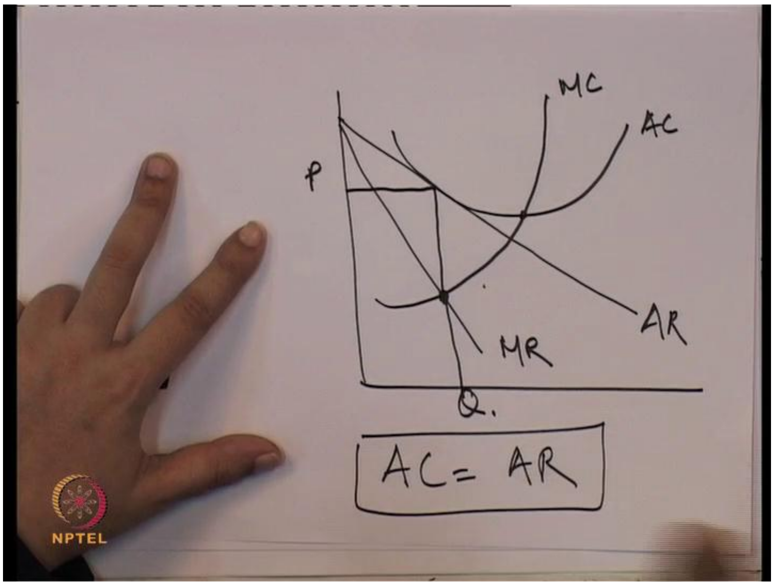

Then we will take the case of normal profit, when generally the firm just gets the normal profit. So, here again we will take average revenue, the marginal revenue, the average cost, we the marginal cost. Corresponding to marginal cost and marginal revenue, we get the equilibrium price, the equilibrium quantity. And in this case, average revenue is equal to average revenue; the firm is just getting the normal profit.

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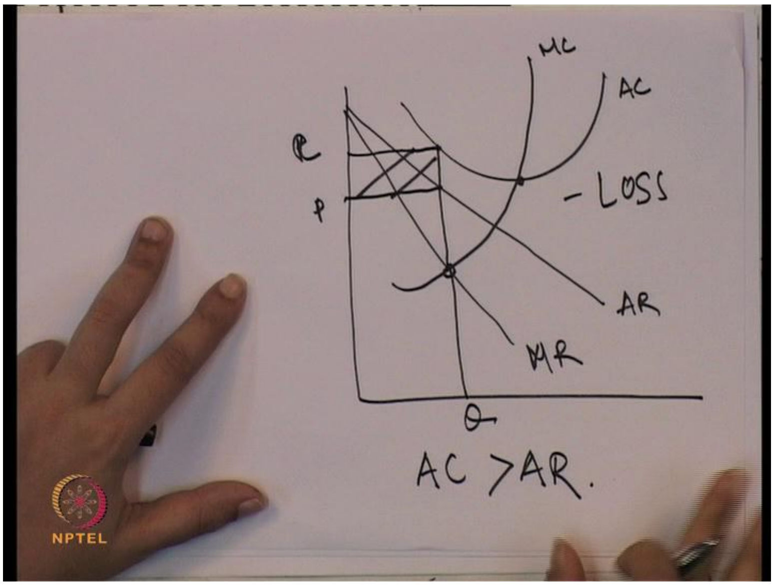

Similarly, in case of loss, the possibility is that in the short run the monopolistic firm also can get the loss. So, in this case this is the average revenue curve, the marginal revenue curve, the average cost curve, the marginal cost curve, following the marginal cost and marginal revenue, we will get the equilibrium quantity and equilibrium price, this is the cost. So, this is the amount of the loss what the firm is getting, because average cost is more than average revenue in this case. So, in the short run, the firm may incur loss. The firm may just get the normal profit or the firm gets also the super normal profit.

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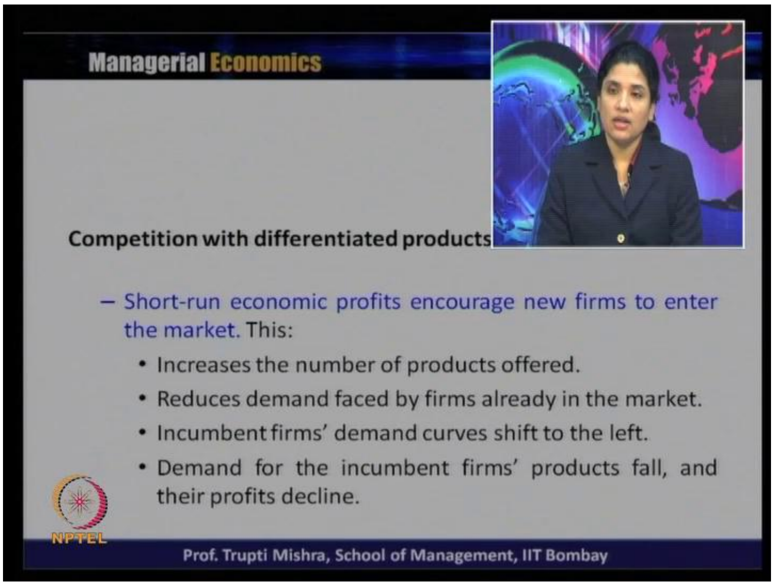

Next, we will see what happens when the firm gets super normal profit or when the firm gets loss. So, short run economic profits encourage the new firms to enter the market. Increase the number of product offer reduces the demand faced by the firms already in the market. And incumbent firms demand curve shift to the left, demand for the incumbent firm product fall and their profit decreases.

So, whenever there is a supernormal profit that incentive for the new firms to enter the market, that increases the number of products being offer, because the new firms will again produce a differentiated product. Reduces the demand for the existing firm that reduces the profit of the existing firm and finally, they again land into a situation where they just get the normal profit.

And the entry into the market continues till the time, all the existing firm they are not getting the normal profit. If they are getting supernormal profit again it is an incentive for the firms to get into the market and produce a differentiated product.

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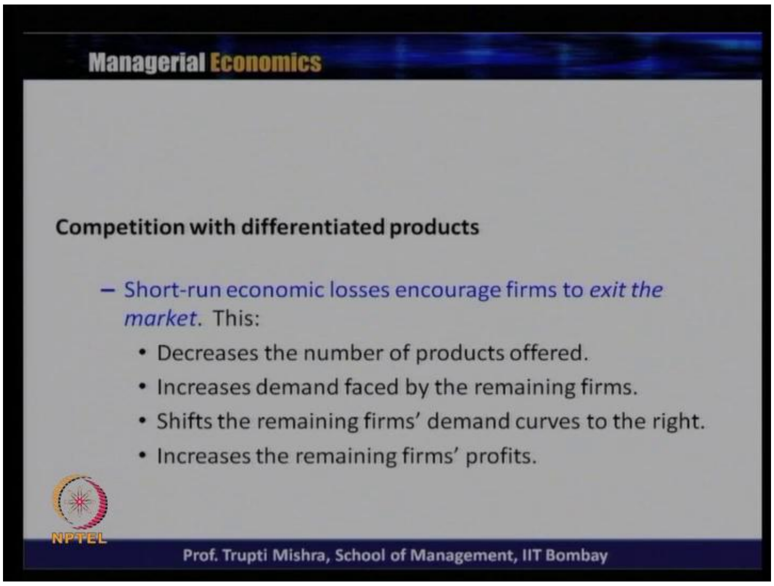

Then we will take a case when some of them are getting economic loss in the short run. So, short run economic loss encourages the firm to exit the market at least for few of them, which decrease the number of product offer. Increase the demand faced by the remaining firm with the exit of few of the firms, shift the remaining firms demand curve to the right and increasing the remaining firms profit. So, again it is a transition from the loss to the normal profit, and this exit from the market of those firms who are making loss will continue till the time the firms they are not getting the normal profit in the market.

Next we will see the price and output determination in the long run. In the long run again, we follow the same principle, we take the marginal cost, marginal revenue as the profit to find out the profit maximizing level of output and price, and after finding that we find out the price on the basis of the demand curve, we find out the cost and the difference between the cost and revenue that gives us the profit loss or whatever may be the outcome.

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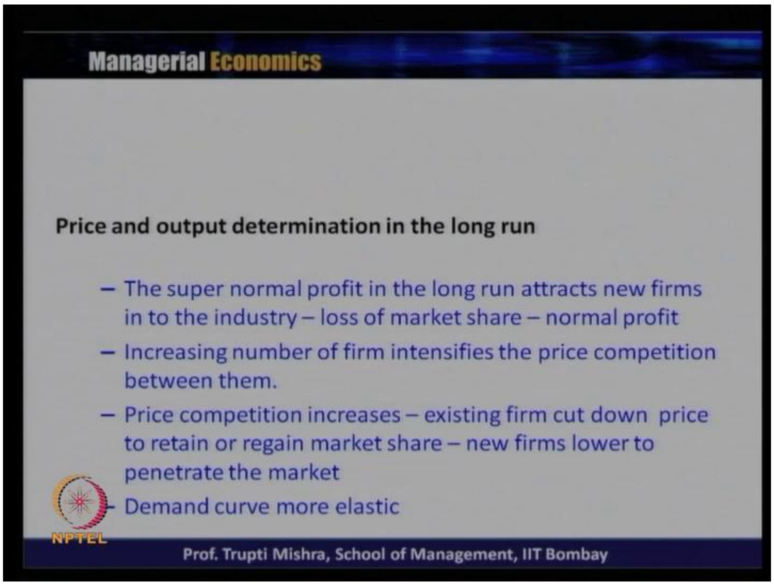

If you look at the super normal profit, in the long run attracts the new firm to the industry that leads to loss of market share and the normal profit. So, increasing the number of firms intensifies the price competition between them. Price competition increases- existing firm cut down price to retain or regain the market share, new firms lower to penetrate the market and demand curve becomes more elastic.

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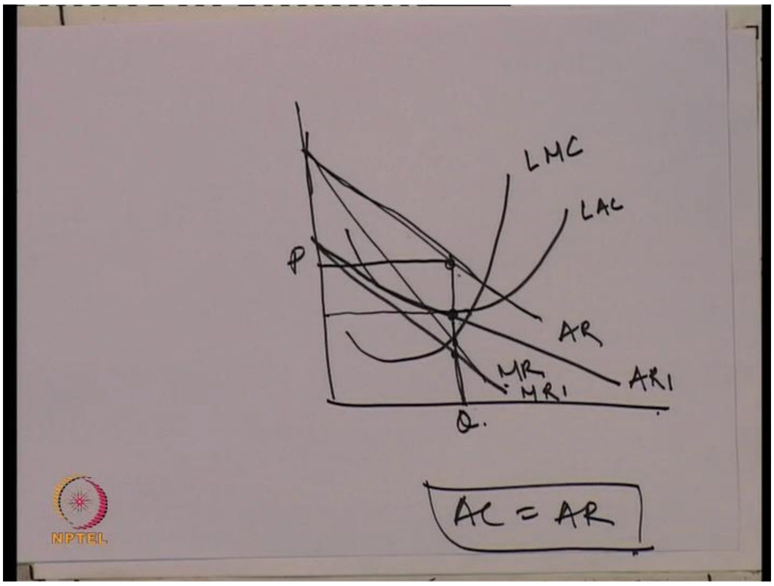

So, let us understand this long run equilibrium, how the demand curve is more elastic when there is a super normal profit in the market. This is marginal cost, marginal revenue, this is the price. And if you look at this price the firm is getting the super normal profit, because average corresponding to this, is the average cost and this is the average revenue and since average revenue is more than average cost the firm is getting super normal profit.

Now, what will happen, this super normal profit will attract the new firm into the industry, which will reduce the loss of market share and that becomes the normal profit. And to normal profit, we need to find out a new set of average revenue curve and the marginal revenue curve. So, this is average revenue 1 and this is marginal revenue 1.

So, increase in the number of firm intensify the price competition between them, price competition increases, the existing firm cut down the price to return their market power, and new firm lower the price to get the profit. So, at this case, if you look at corresponding to this marginal cost and marginal revenue, they are just getting the normal profit, because the average cost is equal to average revenue at this point.

Average revenue, marginal revenue is there on the basis to get a super normal profit. It attracts new firm into the market, existing firm demand decreases, market share decreases, then the new average revenue curve, this is average revenue. Correspondingly we get the marginal revenue curve 1 at this, with the help of this average revenue and marginal revenue cost function remain same. We get a profit price level, which is again lower than the previous price level, and also at this point the average cost is equal to average revenue.

So, this leads to the fact that this average revenue brings down the profit level and the firm get the normal profit. And there is also one more point to note here is that, if you look at between the previous average revenue curve and this average revenue curve, this average revenue curve is more elastic because all the firms they are lowering the price in order to increase the profit.

Existing firm lowering the price to retain their market share, and a new firm lowering the price at least to penetrate in the market. That overall leads to a lower price in the market. There is again a significant feature of this monopolistic competition compare to the perfect competition.

So, if you look at in case of perfect competitive market structure, the firm is equilibrium at the minimum point of the average cost curve, where as in case of monopolistic competition the firm is equilibrium at the falling portion of the average cost curve and there that brings the excess capacity.

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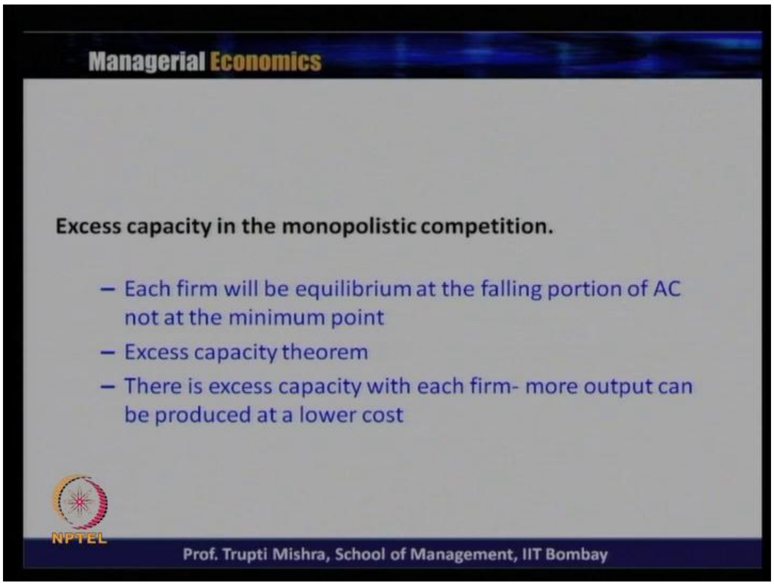

Each firm will be equilibrium at the falling portion of the average cost, not at the minimum point and this is because of the excess capacity theorem which says, there is excess capacity with each firm; more output can be produced at a lower cost, but generally the firm is producing the output which is less than the full capacity or less than the minimum point.

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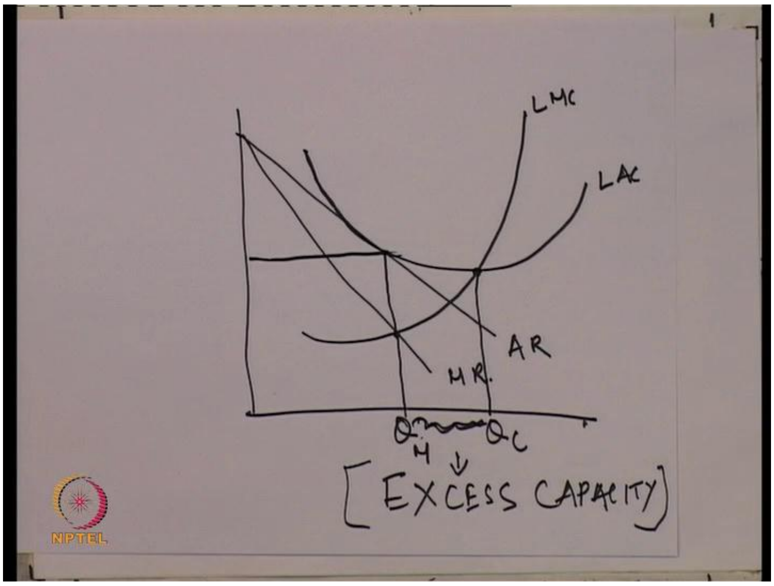

Now, check this graphically how the monopolistic firm becomes excess capacity. this is our average revenue curve, this is the marginal revenue curve, this is the long run average cost curve, this is the long run marginal cost curve, corresponding to this we get the level of output .

So, whether you call it monopolistic output or whether you call it perfect competitive, whether you call it monopoly output, this is the same profit maximizing level of output whether its monopoly or monopolistic. If you look at they operate at the decreasing portion of the average cost curve. But ideally if you look at, always the perfect competitive output is produced at the point, where minimum point of the long run average cost curve. So, the difference between this two is generally known as the excess capacity. Because this much amount of output more could have been produced, the monopoly market and monopolistic market are operating at the decreasing portion of the average cost curve, they are not coming to the minimum point of the average cost or they are not coming to the full utilization of the economies of scale or advantage of economies of scale and they stop their production here, that leads to some excess capacity, because there is no full utilization. And that is why the difference between this q m and q c generally known as the excess capacity in case of the monopolistic and monopoly market structure, which is not there. When it comes to the perfect competitive market structure, you will find more in the monopoly and monopolistic, rather than any form of the market structure.

Then we will talk about product differentiation where advertising is mandatory. The firm has to tell the consumer that how the product is different from the other products in the market because there product is different from the other product.

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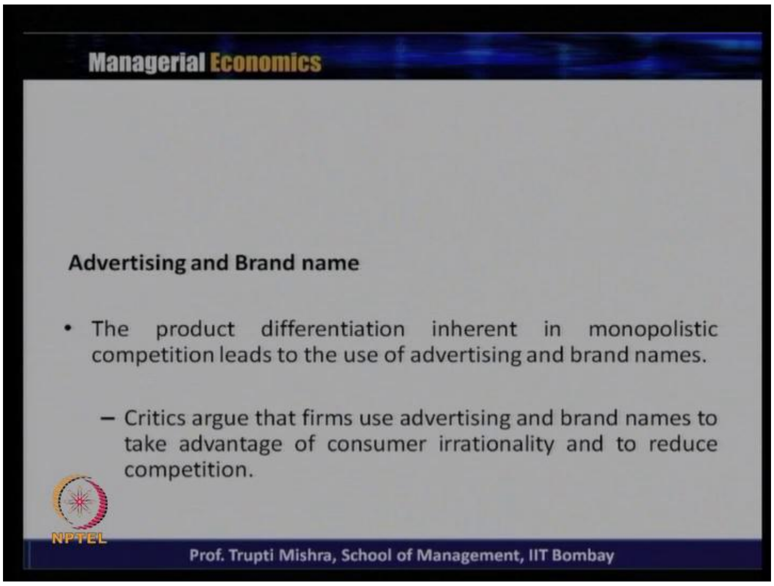

So, the product differentiation is inherent in monopolistic competition and leads to use of advertising and the brand names. Critics argue that firms use advertising and brand names to take advantage of consumer irrationality and to reduce competition.

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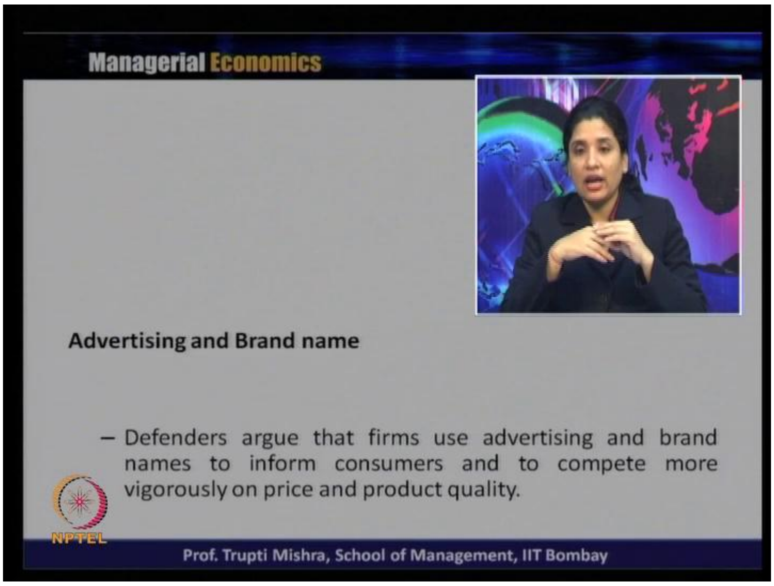

However, the defender argues that the firms use advertising and brand names to inform consumer and to compete more vigorously on price and product quality. So, there is always a two school of thought that whether advertising is positive or advertising is negative, but if you look at the real sense the advertising on to a limiting extent is good till the time, it may not getting use unnecessarily the advertising in order to attract a market share or in order to use a power.

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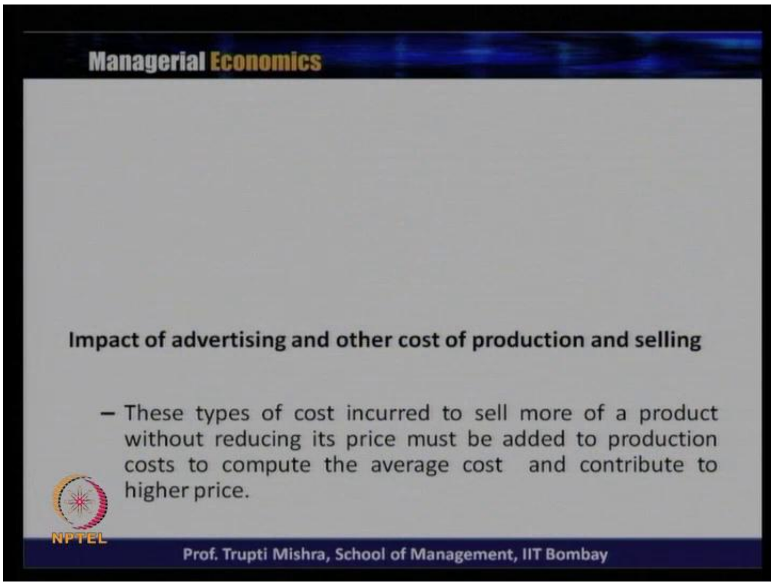

So, when it comes to advertising, we know that advertising is necessary if the product is differentiated. But what is the impact of advertising and other cost of production and selling? So, this type of cost incur to sell the advertising cost and other cost of production selling like selling cost, giving free samples, R and D doing a market research all this expenses incur to sell more of a product without reducing the price must be added to the production cost to compute the average cost and contribute to higher price. Till the time all this costs are not getting added in the production cost, this cannot be accounted for the calculation of price. So, if this is not getting added, the cost of production will increase a price as maintained at the same level, the firm is not going to lose some profit.

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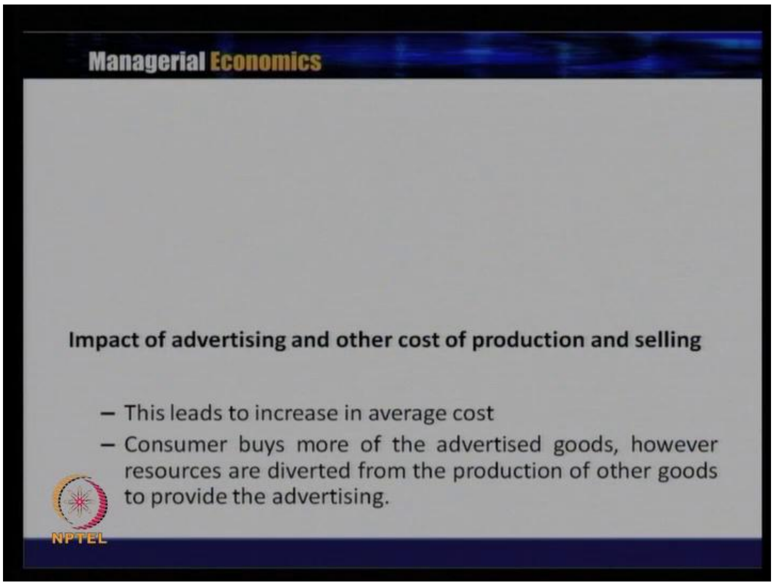

So, this leads to increase in the average cost, consumer buys more of the advertised goods; however, resources are diverted from the production of other goods to provide the advertising. So, ideally when this added into the production cost, this also leads to increase in the average cost and consumer buys more of the advertised goods because that is phrase any other memory or they knows that if it is coming as a part of a (( )), they will see this product in through the different media, they generally buy more of this advertised good, but the resources are diverted generally from production of word goods to provide the advertising.

And that is the again the precondition that why generally the cost to be added in the production cost, because they are incurring a large amount of money on this. So, you if you look at till the time, what is the form of competition in the monopolistic market? Because they are not the price taker they can influence the price to a bit because their product is different from the other product. On what basis they should compete with each other? May be someone can charge a higher price and always add a quality to it and that can be also sold in the market, and someone will charge a lower price, but it is not qualitatively good and that is the reason he survives with a lower price.

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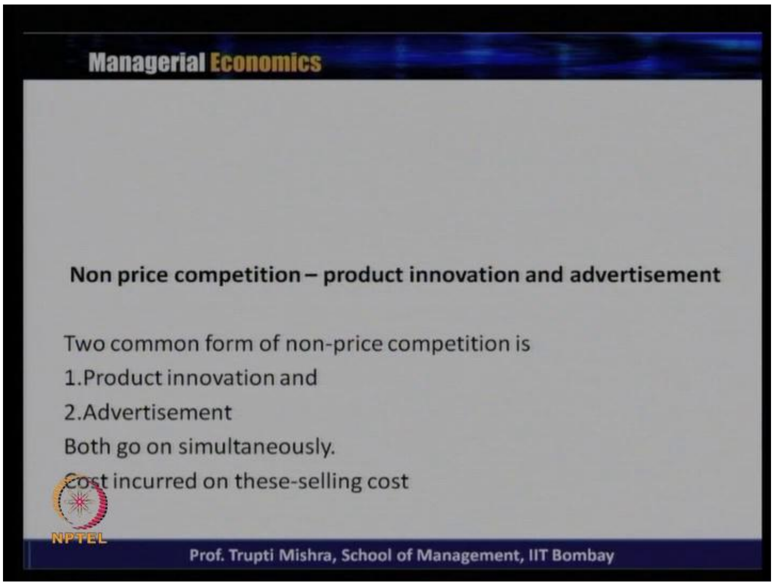

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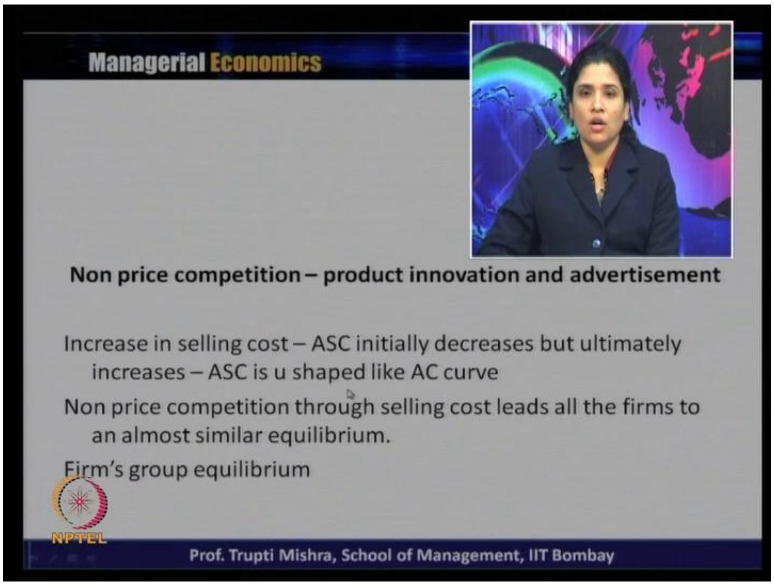

But apart from this price competition, what may be the other factor, on what basis the non price competition takes place in the monopolistic competition. So, two common form of non price competition are there. First one is product innovation, second one is advertisement. Both go simultaneously, the product innovation and the advertisement and cost incur on this selling cost, whatever the cost whether its innovation, or it is an advertisement, both add some selling cost.

So, there is an increase in the selling cost. So, average selling cost initially decreases, but ultimately increases and that is why the average selling cost is U shape like the average cost. Non price competition through selling cost list all the firms to an almost similar equilibrium.

And there through adding the selling cost we can again check what the firm's group equilibrium is when the production cost also consists of the selling cost. So, we will understand the group equilibrium and what is the criticism to Chamberlin's theory form of monopolistic competition and we will talk about the Oligopoly market structure, what are the different models in our next session.