Managerial Economics
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Lecture - 60
Monopolistic

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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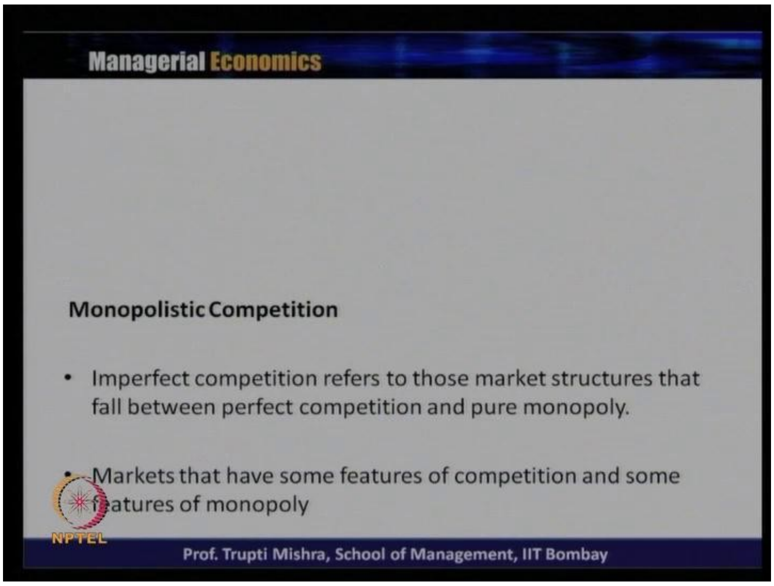

Imperfect competition refers to those market structures that fall between the perfect competition and pure monopoly. It is a market structure that is strictly between the perfect competition and the pure monopoly market that have some feature of competition and some feature of monopoly. It has taken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

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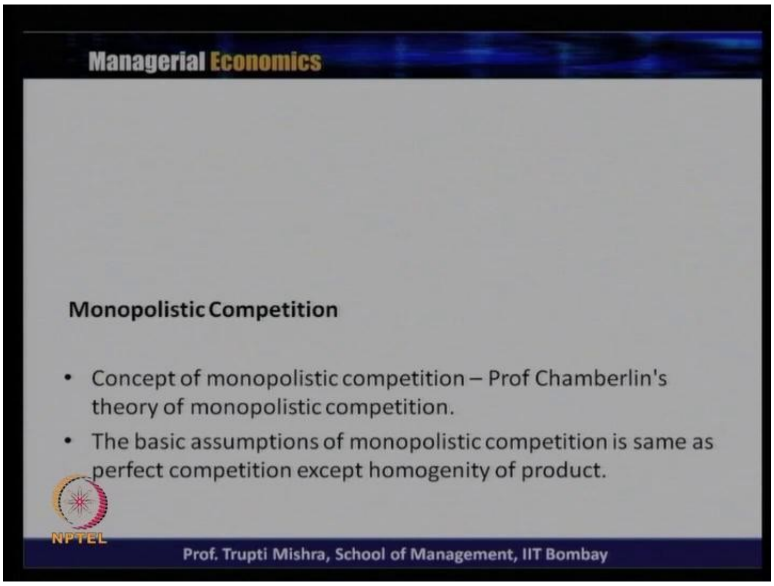

And the concept of monopolistic competition generally comes from the seminal work of Prof. Chamberlin‟s theory of monopolistic competition, and the basic assumption of the monopolistic competition is same as perfect competition except the homogeneity of product. If you look at, it is more close to the 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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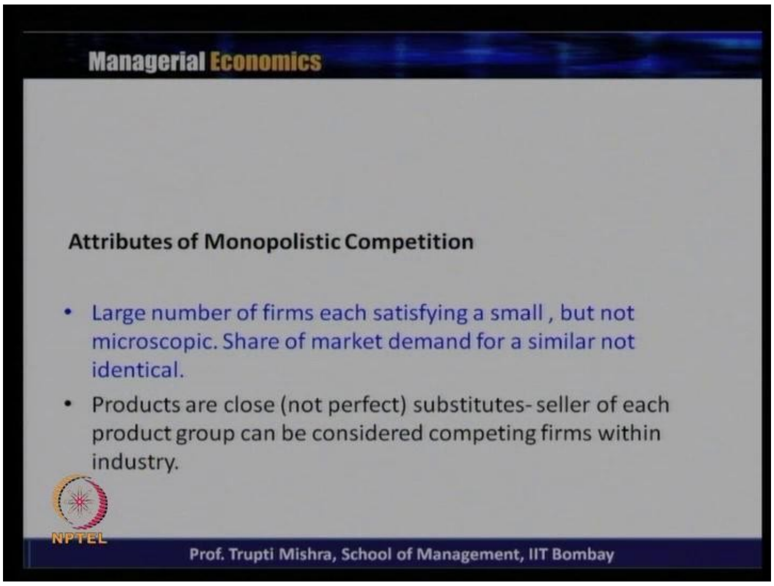

There are large number of firms each satisfying a small, but not a microscopic share. For large number of firms the share is small, but it is not very insignificant also. Products are close substitute, but they are not perfectly substitute. Each product is different from the other in terms of some of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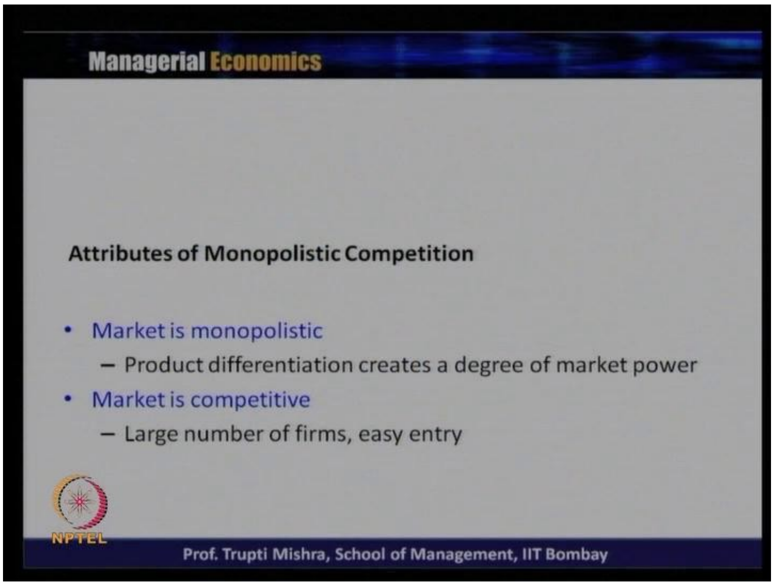

Market is monopolistic, product differentiation create a degree of the market power it is why we call a monopolistic market, because each product is different from the other product. So, when you are doing that independently each product is a single product with no close substitute and that product differentiation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

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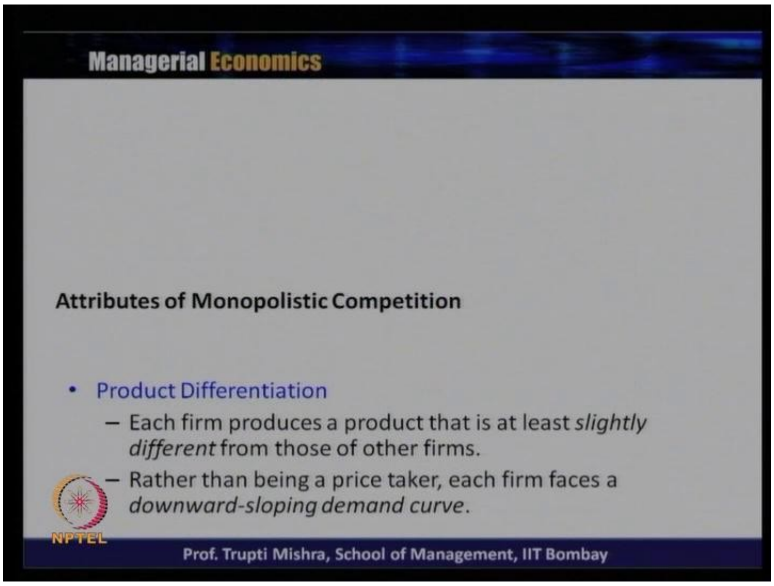

Market is competitive, because there are large numbers of firms, and there is easy entry into the market. One of the important features of the monopolistic competition is the product differentiation. And how this product differentiation makes it different, each firm produce a product that is at least 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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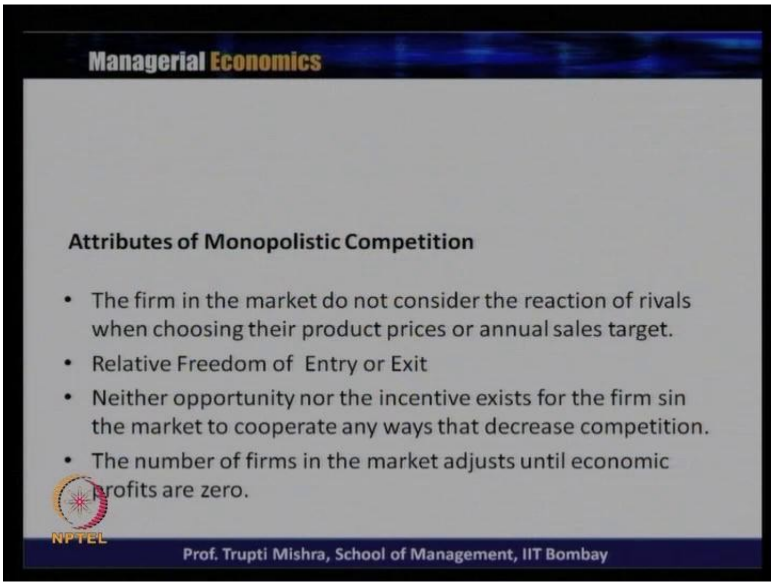

The firm in the market does not consider the reaction of the rivals when choosing their product price or annual sales target. It means the price and output decision of the firm is not getting influenced by the reaction of the rivals. There is relative freedom of entry and exit; there is no barrier as 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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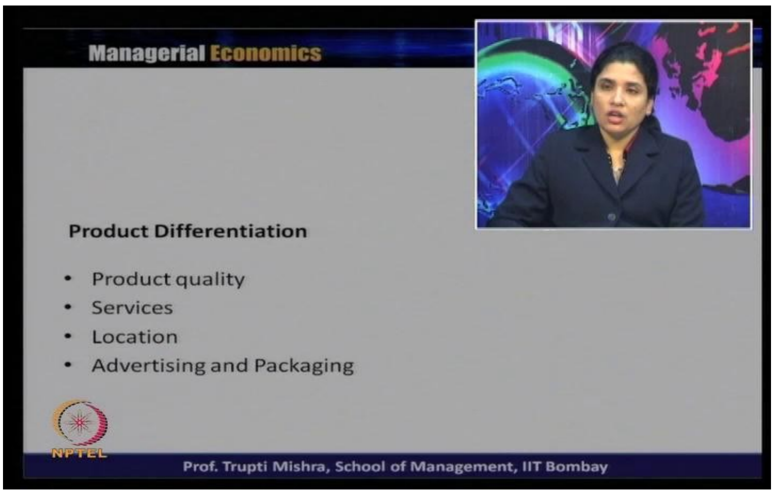

Since, we are talking about a feature product differentiation and that makes the market different from the other market structure, now we will see how the product differentiation is being practiced. The product has to be different from each other either on the basis of the product quality or in the basis 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 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. scale of advertising and who is not doing it. So, generally if you look at the brand value it also

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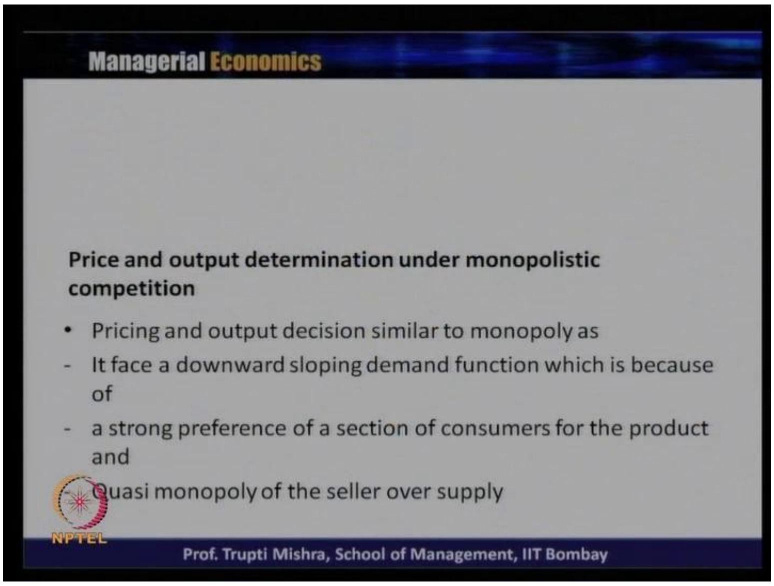

Then we will talk about the price, and output determination in case of a monopolistic competition. This is similar to the monopoly as it faces a downward sloping demand curve, which is because of a strong preference of section of consumer for the product and quasi monopoly of the seller over the supply.

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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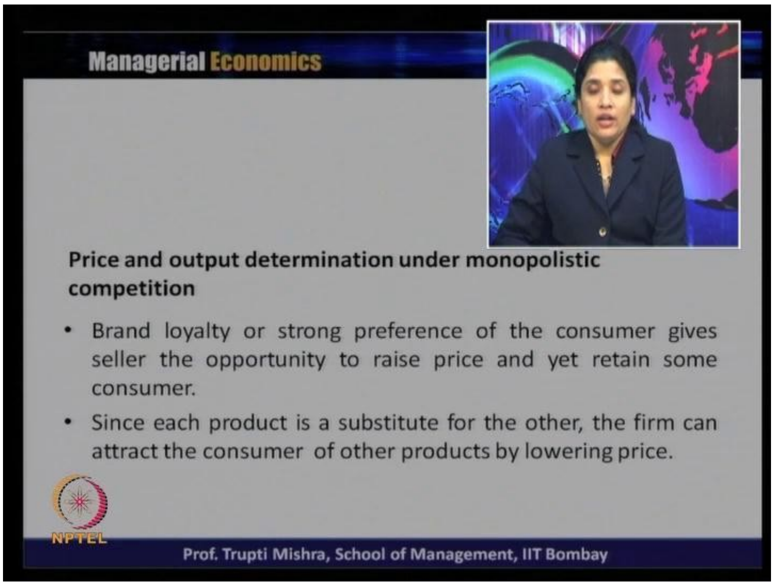

Brand loyalty or strong preference of the consumer gives seller the opportunity to raise the price and yet retain some consumer. So, brand loyalty are the strong preference of the consumer generally allow the seller to increase the price, but still the consumer buy it because there is a brand loyalty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

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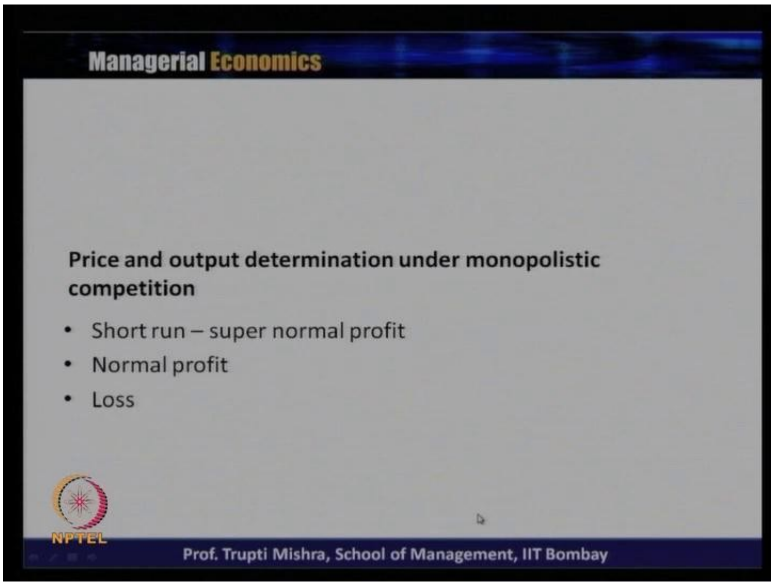

Since each product is substitute for the other, the firm can attract the consumer of other product by lowering the price, and that is why we get a downward sloping demand curve

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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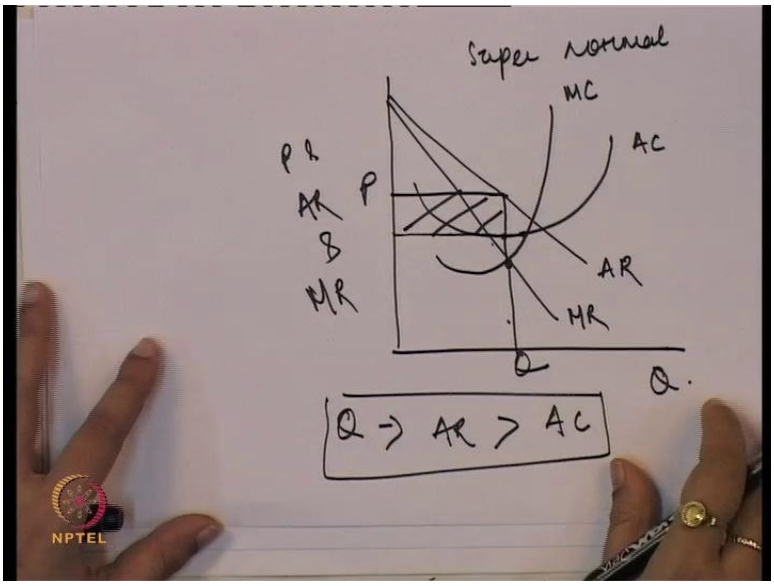

So, we will analyze where they get a super normal profit, where they get a loss and where they just get a normal profit. And if you look at this is always on the basis of the average cost and average revenue. So, this is average revenue, this is marginal revenue, here we will take Q here we will take 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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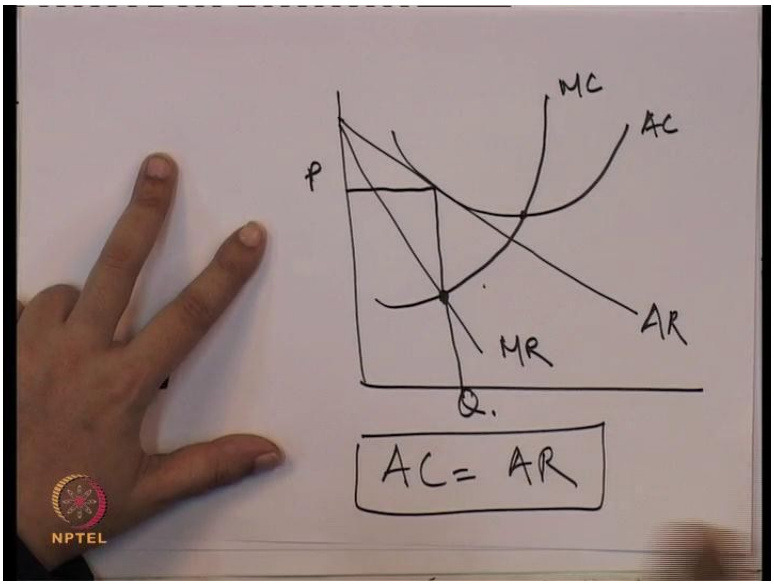

Then we will take the case of normal profit, when generally the firm just gets the normal profit. So, here again we will take average revenue, the marginal revenue, the average cost, we the marginal cost. Corresponding to marginal cost and marginal revenue, we get the equilibrium price, the equilibrium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

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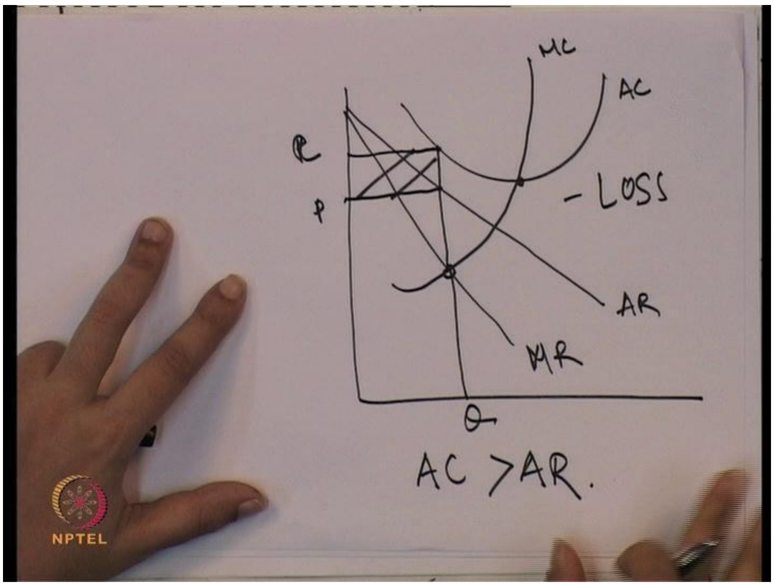

Similarly, in case of loss, the possibility is that in the short run the monopolistic firm also can get the loss. So, in this case this is the average revenue curve, the marginal revenue curve, the average cost curve, the marginal cost curve, following the marginal cost and marginal revenue, we will 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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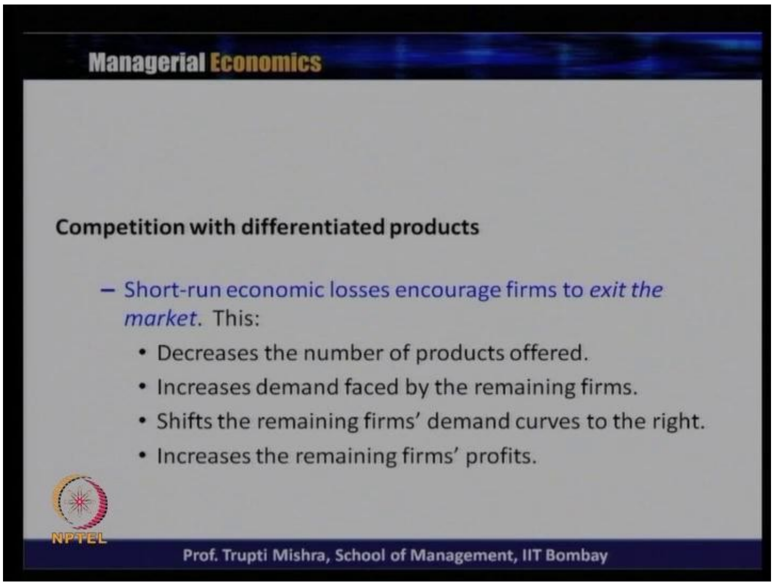

Then we will take a case when some of them are getting economic loss in the short run. So, short run economic loss encourages the firm to exit the market at least for few of them, which decrease the number of product offer. Increase the demand faced by the remaining firm with the exit of few of the firms, 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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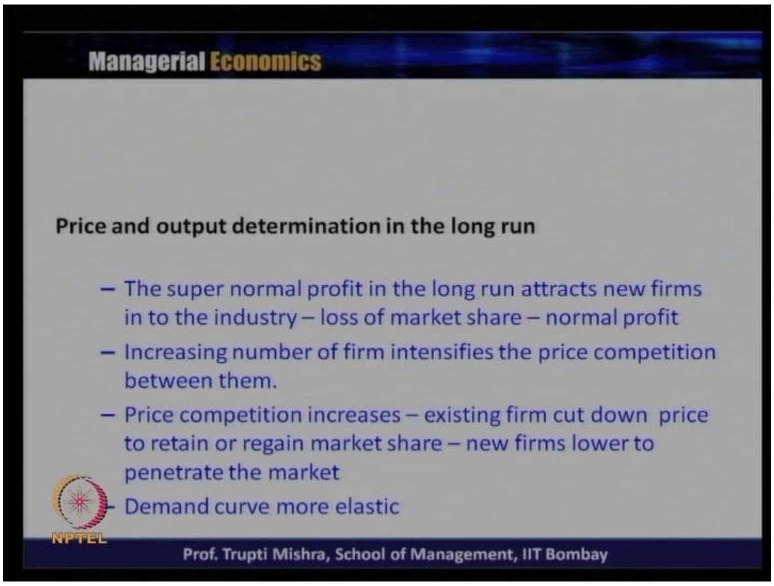

If you look at the super normal profit, in the long run attracts the new firm to the industry that leads to loss of market share and the normal profit. So, increasing the number of firms intensifies the price competition between them. Price competition increases-existing firm cut down price to retain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

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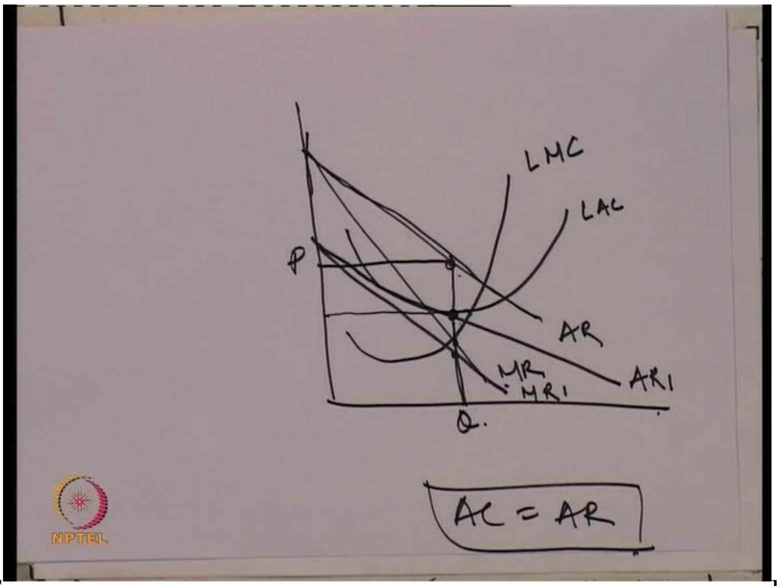

So, let us understand this long run equilibrium, how the demand curve is more elastic when there is a super normal profit in the market. This is marginal cost, marginal revenue, this is the price. And if you look at this price the firm is getting the super normal profit, because average corresponding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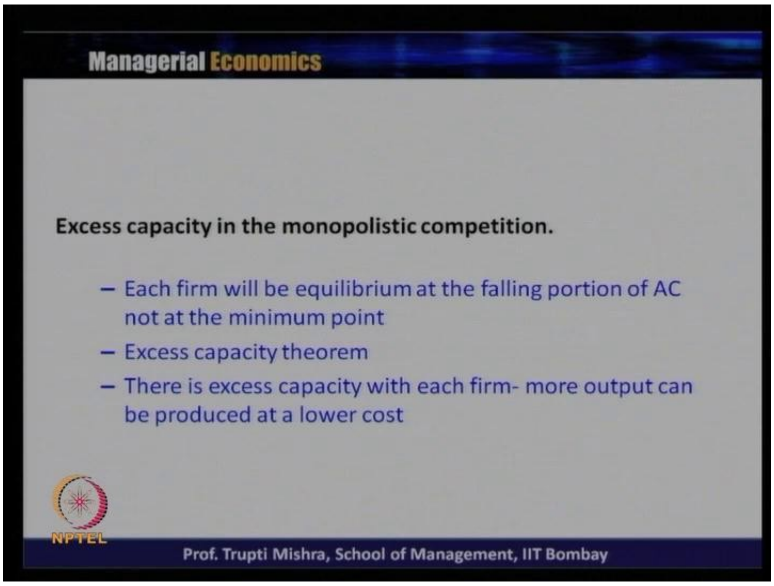

Each firm will be equilibrium at the falling portion of the average cost, not at the minimum point and this is because of the excess capacity theorem which says, there is excess capacity with each firm; more output can be produced at a lower cost, but generally the firm is producing the output which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

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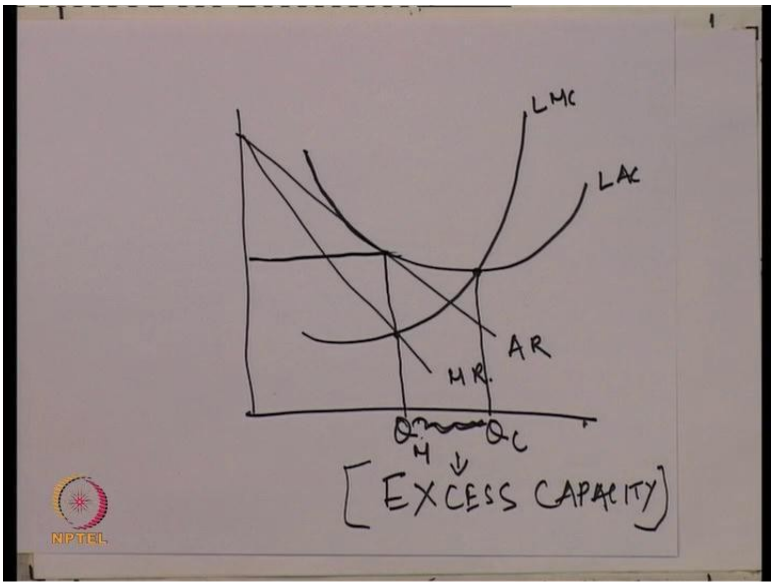

Now, check this graphically how the monopolistic firm becomes excess capacity. this is our average revenue curve, this is the marginal revenue curve, this is the long run average cost curve, this is the long run marginal cost curve, corresponding to this we get the level of output .

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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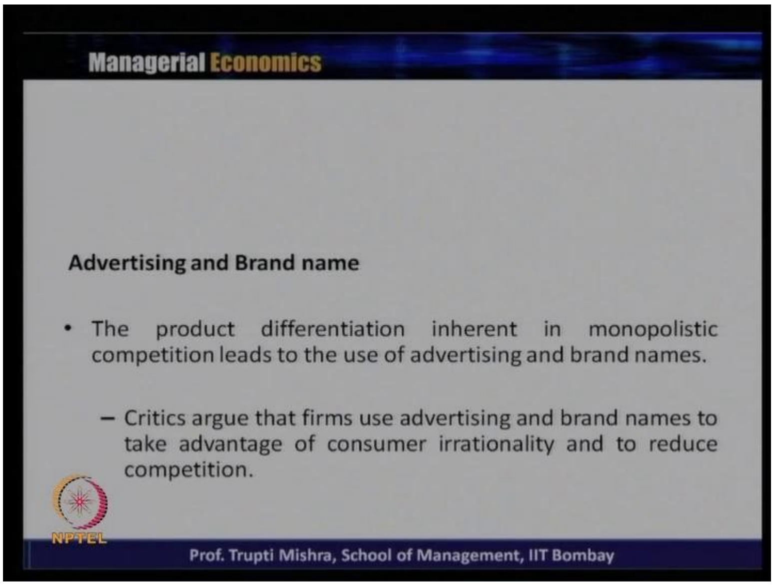

So, the product differentiation is inherent in monopolistic competition and leads to use of advertising and the brand names. Critics argue that firms use advertising and brand names to take advantage of consumer irrationality and to reduce competition.

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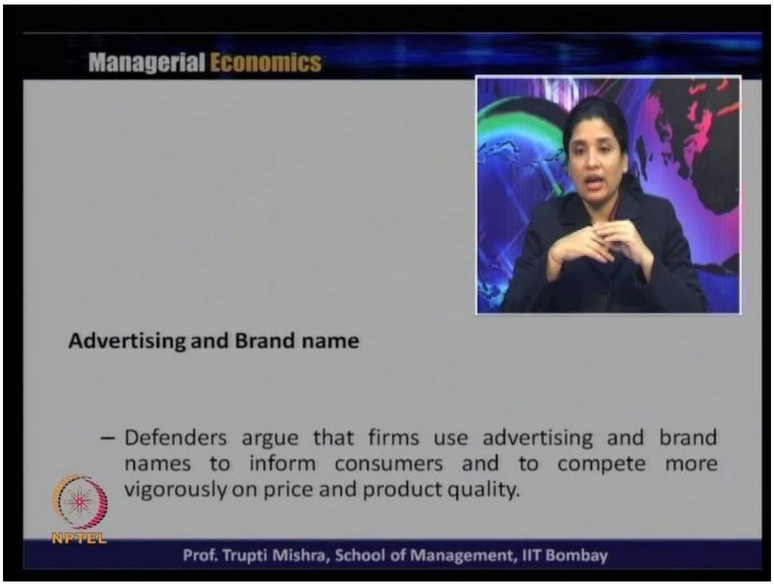

However, the defender argues that the firms use advertising and brand names to inform consumer and to compete more vigorously on price and product quality. So, there is always a two school of thought that whether advertising is positive or advertising is negative, but if you look at the real sense the 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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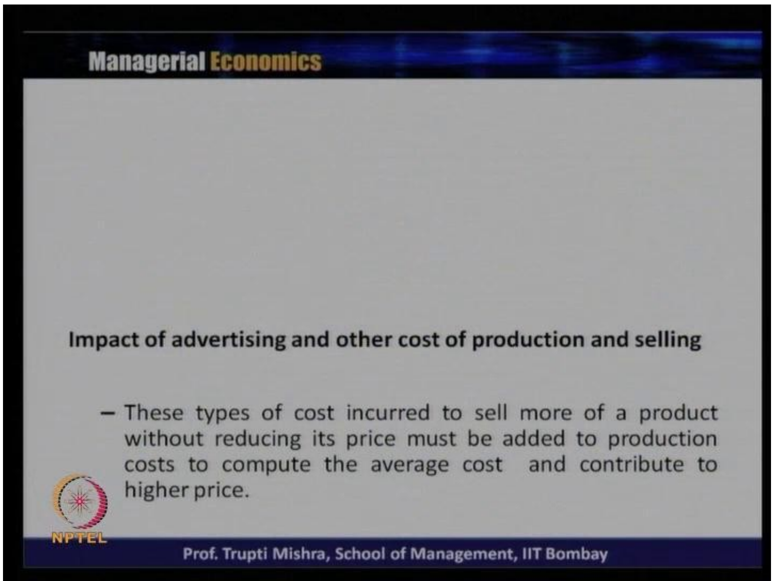

So, when it comes to advertising, we know that advertising is necessary if the product is differentiated. But what is the impact of advertising and other cost of production and selling? So, this type of cost incur to sell the advertising cost and other cost of production selling like selling cost, giving 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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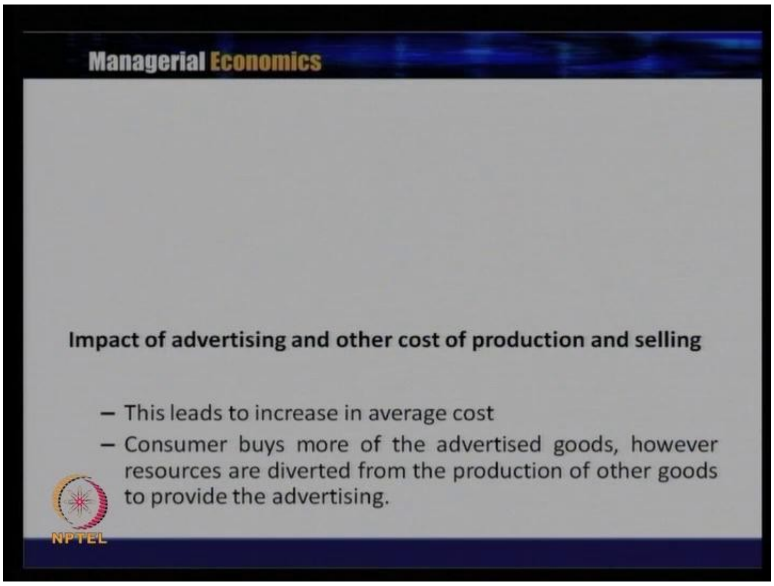

So, this leads to increase in the average cost, consumer buys more of the advertised goods; however, resources are diverted from the production of other goods to provide the advertising. So, ideally when this added into the production cost, this also leads to increase in the average cost and consumer 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 awareness, 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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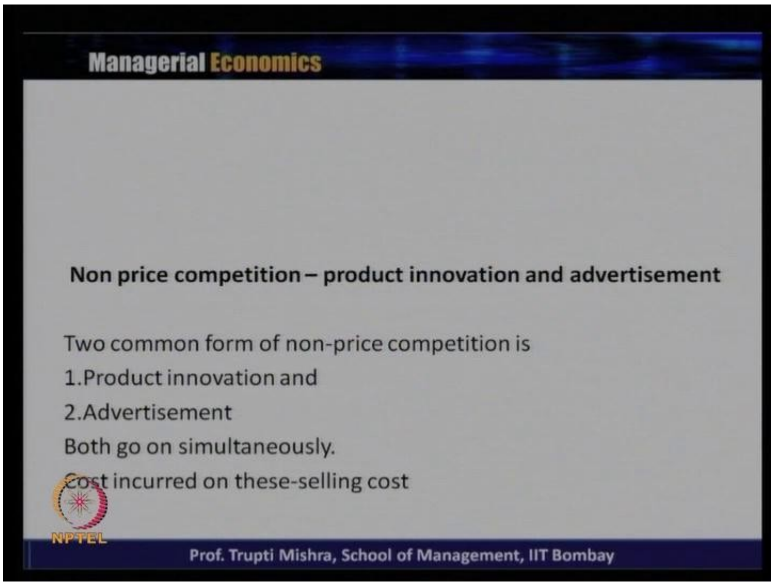

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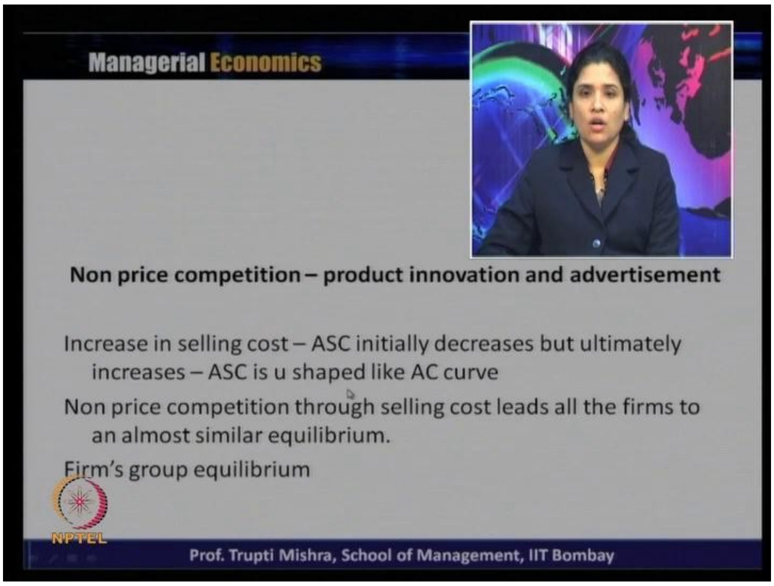

But apart from this price competition, what may be the other factor, on what basis the non price competition takes place in the monopolistic competition. So, two common form of non price competition are there. First one is product innovation, second one is advertisement. Both go simultaneously, the product 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.