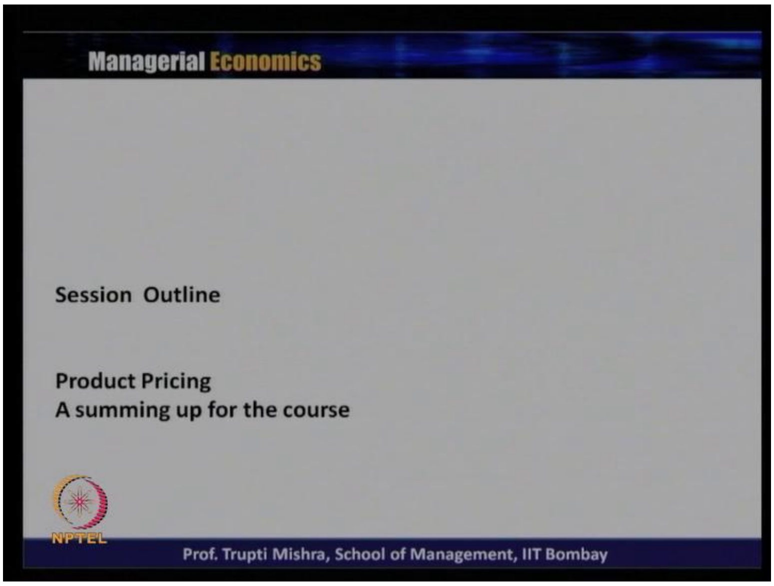
Managerial Economics
Prof. Trupti Mishra
S.J.M. School of Management
Indian Institute of Technology, Bombay

Lecture - 40
Summary

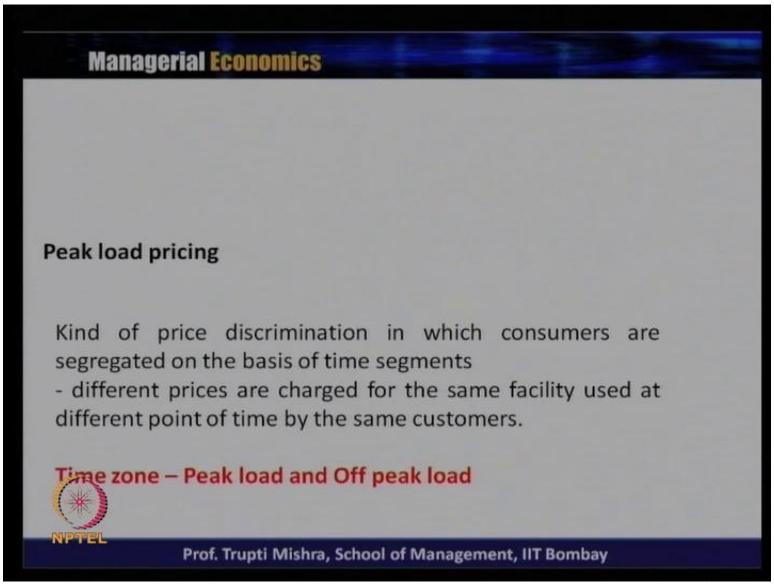
So, in the present session, we will continue our discussion on product pricing, few we will discuss few more kind of pricing. And then we will sum up our entire Managerial Economics course, since we have covered all the topics whatever we thought of covering in this typical course.

(Refer Slide Time: 00:39)



So, to start with, if you remember in the last class, we talked about the product pricing, mainly when the pricing is done on the basis of the product lifecycle and on that basis, we generally talked more about the product scheming. And then we discussed about the pricing based on side like cyclical pricing, pricing based on this input output relationship, then we talked about the Ramsey pricing and the transfer pricing. So, we will discuss some more types of product pricing now and to start with we will talk about peak load pricing.

(Refer Slide Time: 01:15)

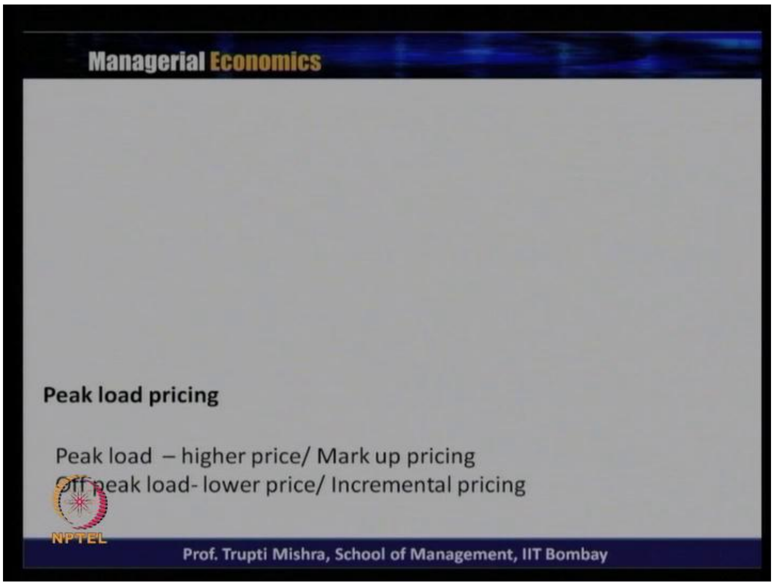


And in case of peak load pricing it is a kind of price discrimination typically, in which consumers are segregated on the basis of time segment. So, here it is not the same kind of pricing, for the different consumer group rather it is a different different kind of price discrimination different kind of pricing for the different consumer group. So, it is a part of price (( )), so rather than it say the pricing technique we can say it is a price discrimination technique, what we and in this case generally we load, we use this peak load pricing.

So, this is the kind of price discrimination which segregate consumer into different group on the basis of the time. So, it is like user or consumer or user in a typical time period will charge more, user in the typical time period will be charged less. So, in this case different prices are charged for the same facility use at different point of time by the same customer. So, even if it is the same customer when he uses the product or when he uses the service at the different point of time different pricing he has to pay.

So, typically this segregation is on the basis of the time and here on the basis of time zone the entire time zone is divided into two types, one is peak load and the other is off peak load; and in case of peak load generally higher price will be charged.

(Refer Slide Time: 02:38)



And here the pricing model is markup pricing and in case of off peak load generally off peak load pricing where there will be lower price will be charged. And the pricing is based on the incremental pricing. So, the entire time zone is divided into two kind of time zone, one is peak load, another is off peak load; peak load where activities are high and off peak load is when the activities are less.

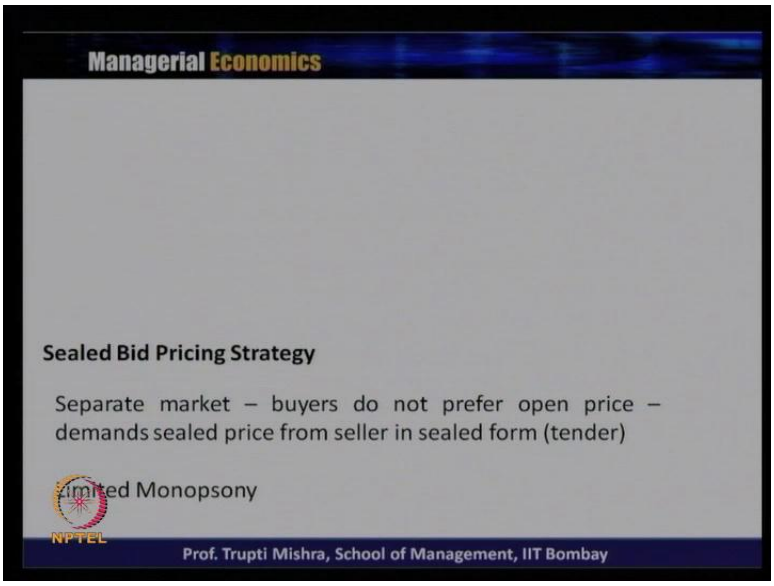
So, activities are low high in this case it is higher price for the product or higher price for the service and the pricing is on the basis of the markup pricing. And in case of off peak load, generally where the activities are bit less there it will lower price and in this case the pricing technique is incremental pricing.

Then the typical example of peak load pricing is like, if you remember during the initial days when the cell phone service providers where there. Or generally with the time period it they use to charge a different different pricing like first 100 minutes may be you know you get a free services. Then next 100 local to local, the next 100 minutes will be charged in a different price and the call up more than 200 units will be charged in a different price.

Similarly, when this yesterday prices if you look at there were different pricing from morning 6 to 8 then 8 to 9 and again from 9 to evening 7 o clock it is the peak load pricing. Because, there the activities are more and that is why it is a higher price and after 7 to 9 the reach is 1 3rd half of the actual price. And after 9 o clock or after 9 to 11 generally we use to get 1 3rd and after 11 o clock we use to get one fourth.

So, on the basis of the different time of the day generally, the yesterday rates were varying. And this is generally the example of the peak load pricing, where in the off peak load generally prices are less and in case of peak load the prices are more. Similarly, if you look at typically in the that is not being practice in India; but in some foreign country the energy are more, the electricity charges are more during the peak hour, during the business hour and energy prices will less during the off peak hours.

(Refer Slide Time: 05:13)

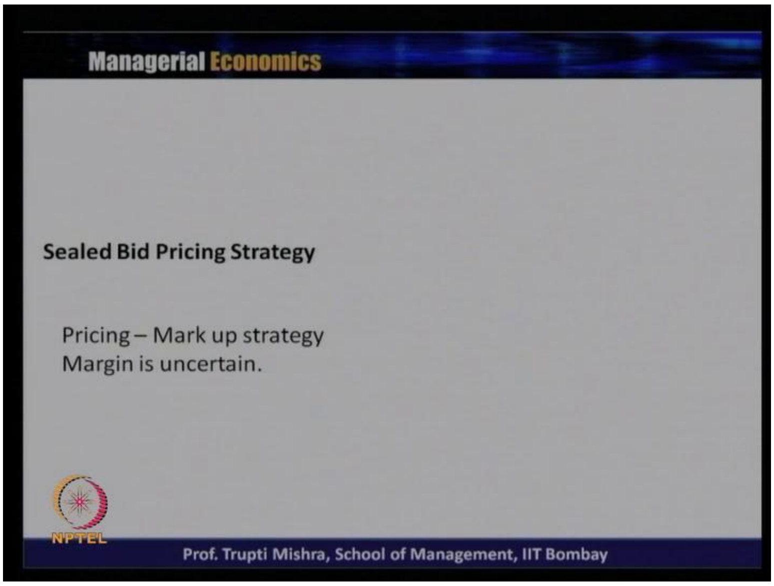


Then we have the sealed price bill pricing strategy, here it is a kind of separate market altogether buyer do not prefer the open price and demand sealed price from the seller in a sealed form the typical example is tender here. So, this is the example of limited monopsony, when there is only one buyer and the number of sellers are many. In this case buyers do not prefer a open price or the open market price they ask the seller whatever the prices they are going to charge for the product they have to give it in the sealed form.

And looking at the price generally they will decide the buyers will decide from whom they are going to buy. This specifically happens in case of the monophony buyer. And also typically all this government offices and the public utility services with the regulatory authority. Generally they ask for the quotation from the different seller that whatever the prices they are going to charge for doing a specific job. It is always in the seal form typically known as the tender price and they always follow the lower tender price people.

Generally if you look at this the regular practice that the if someone has quoted a lower price, lower tender price generally they gets the deal. So, the typical example of seal bid pricing strategy is the tender, which generally happen in case of the limited monophony and also in the government offices, where the accounting accountability is very high.

(Refer Slide Time: 06:45)

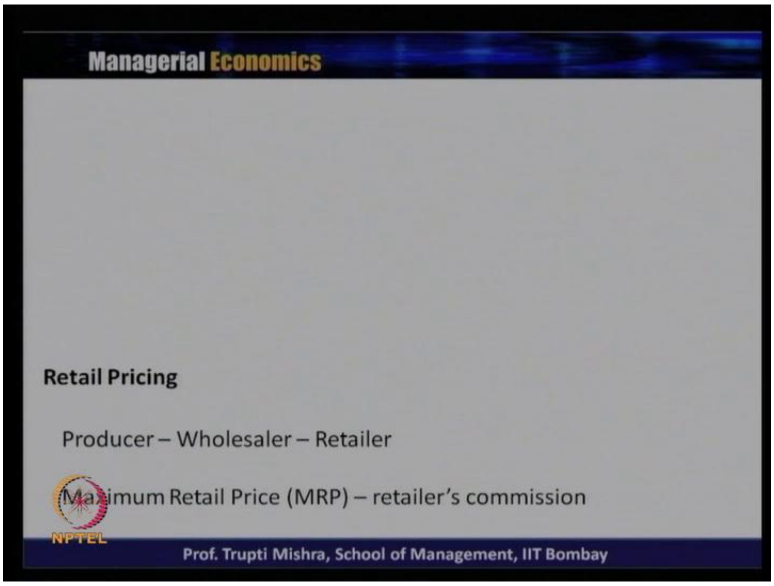


Then in case of sealed price pricing strategy, markup generally it is follow markup strategy and markup strategy where there is a cost of production plus some margin. But, here the challenge comes what should be the margin, because if there are ten bidders and each of them they are bidding for it. The when they decides the margin, they cannot quote a lower price lower margin, because it may happen that when they are quoting a lower margin and that leads to a lower price which looks unrealistic.

And which gives a impression that they are not going to go, they are not going to give a qualitative job. So, in that case also they are not going to get the tender and also in the case of high bidding price, when they put up a high margin they are not going to get the tender because that looks like in a in a very high level.

So, margin is generally fixing up the margin is challenge in case of the seal bid pricing strategy even if they are following markup pricing, because it is a it is not a open price rather it is a close price. So, it is difficult to know the, what are the margin of the other competitor who is bidding for this typical goods or the typical services.

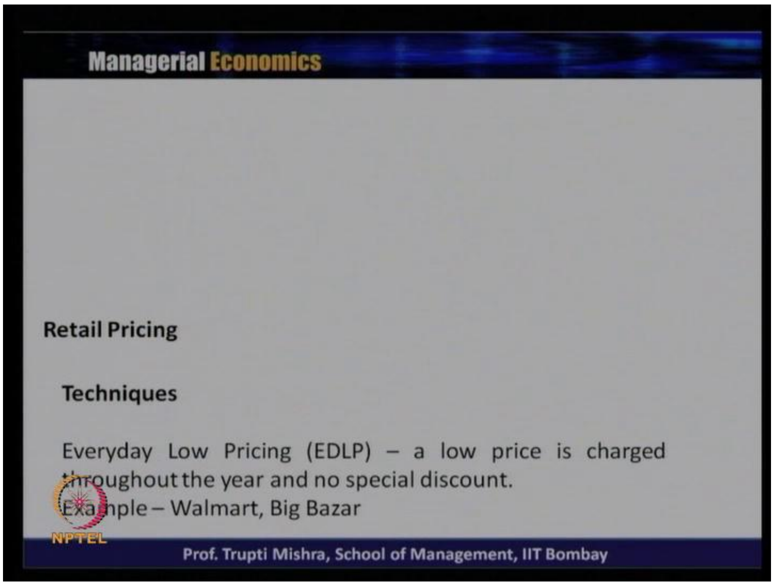
(Refer Slide Time: 07:54)



Then we have retail pricing and how retail pricing is different from the producer pricing or the wholesale pricing, what is the value chain over here producer generally produce the product, then they send it to the wholesaler. So, producer generally sells the product in price to the wholesaler and from retailer buy from the wholesaler and sell it in the market. So, every time there is some value addition and if you look at whatever the price is charged by the producer, it is not going to be same by the wholesaler, they will add their margin.

And from wholesaler when it comes to retailer that is again their margin is being added. And finally, whatever the price we get that is the maximum retail price if you have seen in all these product it its written M R P is this much. So, maximum retail price and in the maximum retail price generally the retail commission is the commission of the retailer is added over here. So, retail pricing is one at that price generally the consumer buys product from the retailer, and in case of maximum retail price the retailer commission is added.

(Refer Slide Time: 09:06)

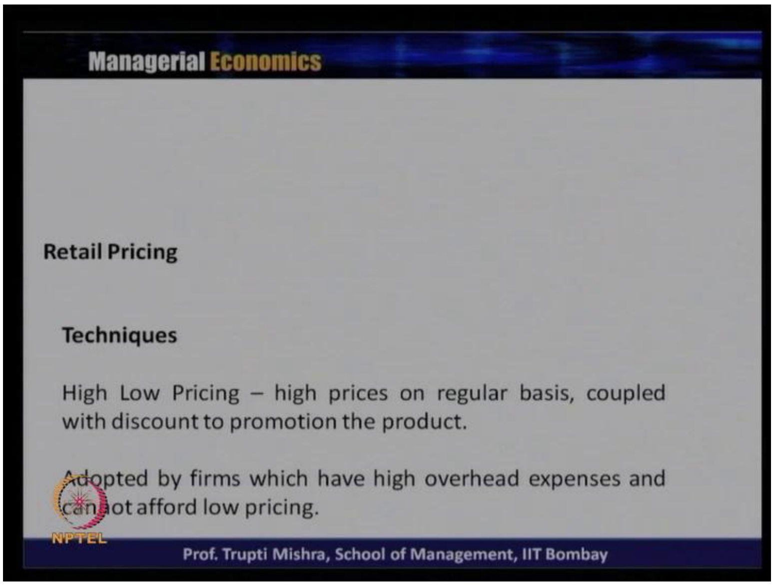


Now, what is the technique for this retail pricing or what is the pricing technique generally followed by the retailer. One example is the everyday low pricing that is generally known as the EDLP and under this technique generally a low price is charged throughout the year and there is no special discount.

So, typical example if you look at generally we call it is the big bazaar or whether it is the Walmart or whether it is the duller store. Or whether it is the easy shop there are number of chain if you look at number of supermarket, they charge is low low price constantly throughout the year. And in that case there is no other discount rather than because they are a lower price throughout the year and this pricing strategy is known as the everyday low pricing.

And here also the consumer have the understanding that if you are going to that particular store, there every throughout the throughout the year everyday they are paying a lower price for all this product as compared to the other product. Then the other technique is high low pricing.

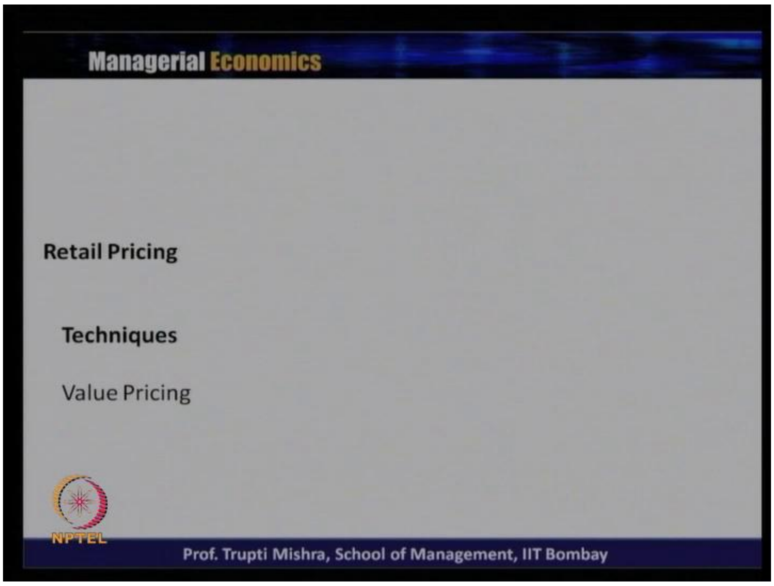
(Refer Slide Time: 10:07)



And high low pricing is the high prices on the regular basis, coupled with discount to promotion the product. This is generally followed by the retailer typically the when they want to make it a branded product, generally they always say that see this is a good brand they have to follow a high price. They have to follow a high price on the regular basis, but they give some discount promotion the promote the product. This is typically adopted by firms, which have a high overhead expenses cannot afford low pricing.

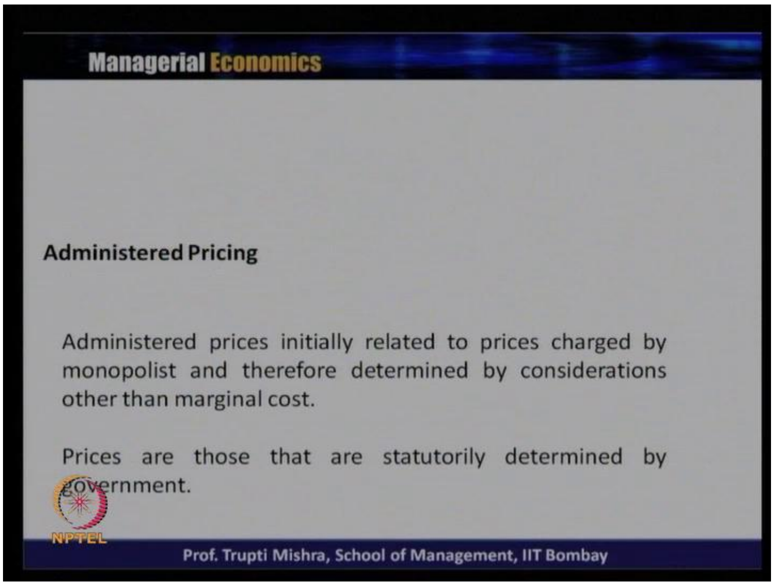
The typical example if you look at the whether it is about good brand, whether it is about Tanishq or whether it is about any good brand of garments. Every day they charge a higher price, because they charge that price for their brand; and on a particular day or on a particular occasion they give discount when they have to promote their product.

(Refer Slide Time: 11:02)



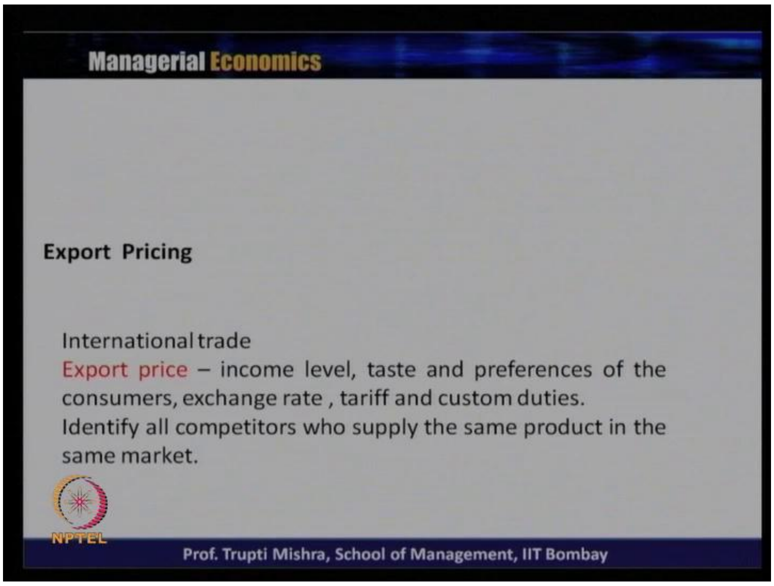
Then in that technique we have one more pricing that is known as value pricing, where it is a value for money generally, they say that what is the perceived value attached to the product. The retailer generally they take a judgment on the basis of the perceived value of the product from the consumer point of view and on that basis generally they do a value pricing. If the consumer is giving having a very high perceived value for the product, they charges the higher price, and if it is a low perceive value they generally charge a low price.

(Refer Slide Time: 11:35)



Then we have administer pricing and administer price is generally related to price charged by the monopolist and therefore, determined by the consideration other than marginal cost. And prices are those that are statutorily determined by the government, this is typically known as the administer price.

(Refer Slide Time: 11:49)



Then we have export pricing and export pricing comes into picture, because there is international transaction taking place after typically the when the international trade is there. Or the when the liberalization and the globalization has taken place and international trade either we import the product where we have to make the payment the domestic economy has to make the payment and or it is exported; so where we receive the payment.

So, when the export price is fixed in this case the determinant for the export price is need to check, where this product is getting exported, what is the income level of that country, what is the taste and preference of the consumers of that country. What is the exchange rate between the currency of that country where the transaction is taking place and the domestic currency, what is the tariff and custom duties in that country to the trading. Identify and also to identify all the competitors, who supply the same product in the same market, because export price is something where the domestic product is getting sold in the foreign market.

So, pricing is not on the basis of the domestic business environment rather this is on the basis of the foreign country business environment, where the product is getting sold or where the product is getting exported. So, that is why here the exporter, when they are fixing up the price they need to consider, what is the income level, what is the taste and preferences, what is the exchange rate, what is the tariff custom duty.

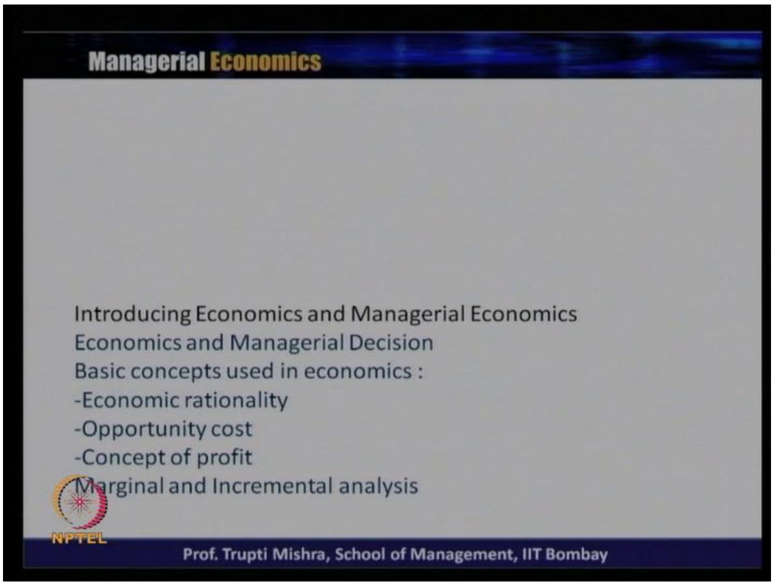
And also one of the important factor they have to look into that, who are the other competitors or who are the other supplier, who is exporting the product to that particular region or that particular location. So, with this we completed our discussion on the product pricing. And if you remember in the product pricing, we discussed about the different kind of pricing that is based on competition, that is based on the goal of the firm; that is based on the cost, that is based on the cyclical changes, that is based on the product lifecycle.

And also we talked about two pricing, but basically one is the multiproduct pricing, where pricing is decided on the basis of the combined marginal revenue. And the second one is the price discrimination, which is generally practiced by the monopoly when they charge different prices to the different consumer group in different market and different time period. So, with this we completed all this topic whatever we listed in the this typical course or whatever has to be covered in this typical course.

And now we will do a summing up of the entire topics whatever we have covered in this particular course. And to start with if you remember we divided the entire managerial course into 4 modules and module 1 we will talk about basically introducing the different kind of economic concept, economic principle. And the basic tools required for the economic analysis and the optimism technique. Module 2 talks about the demand and supply, typically demand supply elasticity of demand the consumer behavior and the demand forecasting.

Module 3 is theory of cost and theory of production and module 4 is market structure. So, we will try to summarize each module on the basis of whatever the key concept discussed in the in each of this module. So, if you remember in the very first class as we discussed, this is we introduced the subject economics.

(Refer Slide Time: 15:39)



The what is basically economics and if you remember economics is it is the study of choice and valuation or is the study of the scarce resources. And from there the concept of managerial economics came, because generally using the economic theory economic principle. And with a decision making tools manager try to solve whatever the business decisions problems and that gives us the optimal solution.

And since all the economic and managerial managerial decisions it is related to the basic problem basic economic problems of the country of the economy. And what is the basic economic problem, because there is a there is a difference between the unlimited human want and the scarce resources available to satisfy those want. From there actually the basic problems of the economy or the three basic question, what the manager faces in the firm level and what the economy faces as a general level for the whole countries, what to produce, how to produce and for whom to produce.

So, all the managerial business decision problem is somehow in the broad level related to this three question that is what to produce, how to produce and for whom to produce. And managerial economics or the managers will try to what is the job of the manager, the manager job of the manager to is to direct the resources, so that the firm can achieve the goals or the achieve the objective.

So, in this case generally the managerial economics where it is a study of resources, here the manager when they use the study of economics to do the direction or the resource direction to stated objective, that is generally the managerial economics. And then we discussed few basic concept that is getting used in the economics analysis and economic understanding that is one is two basic assumption that is one is economic rationality. And second one is (( )) (( )) talks about the fact that other than study variable other all other variable has to be remain constant and it ah.

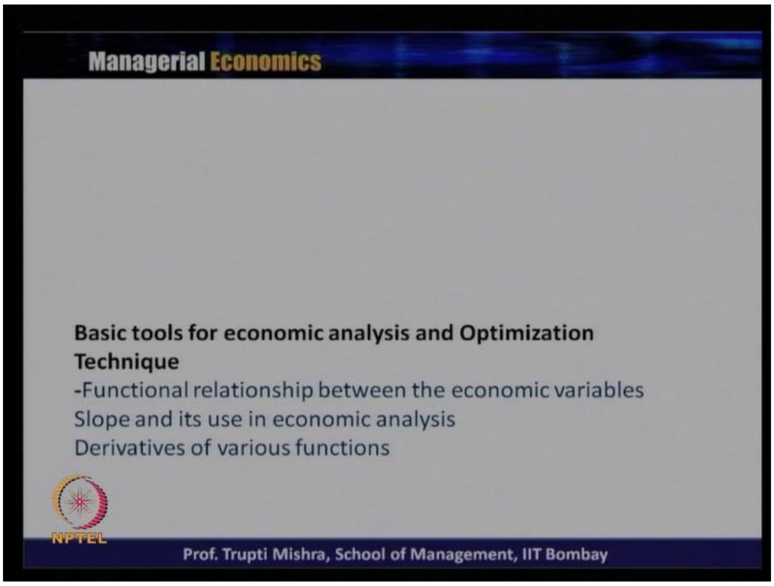
And the second assumption second basic assumption is economic rationality and here the assumption is that all economic agent that is consumer, producer, seller they have to be rational in their decision, they have to rational in their behavior. Then we discussed about the opportunity cost, this is the benefit from the next best alternatives, because and why this opportunity cost comes. Because, there is no unlimited resources to satisfy unlimited wants, generally the economic agents they do valuation of their alternative and on that basis they use the resources.

So, it is not that all the wants get fulfilled or all the alternatives, for all the alternative they have resources and the that is why this opportunity cost comes. Whenever we use the resources to for one alternative we need to see what is the opportunity cost of using that resources. And opportunity cost of using the resources is always the benefit forgone from the next best alternative.

Then we discussed about the concept of profit concept of profit is basically the concept of economic profit and the accounting profit. And about that where to we need to add the implicit cost and where implicit cost is not going to added. Then we discussed about the marginal analysis and incremental analysis, marginal analysis is generally the difference the total or the addition to the total, whenever the new activity is done by them it is a marginal cost.

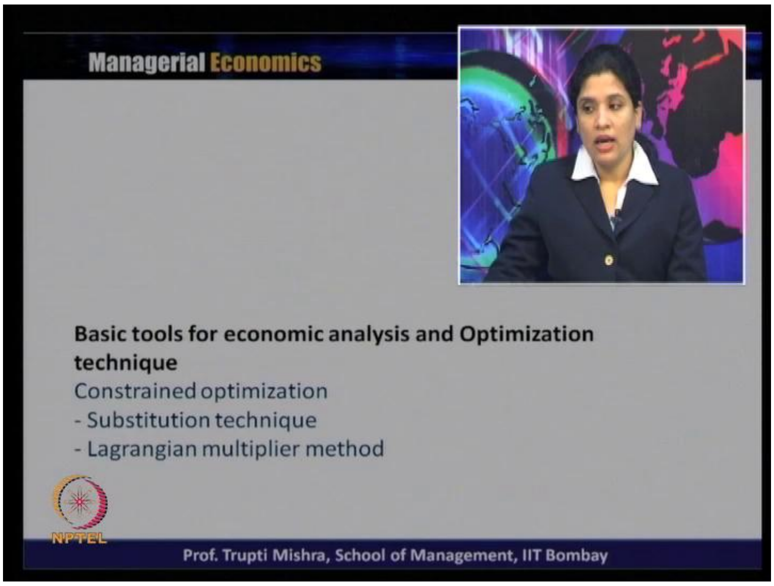
The cost additional to the total cost, marginal revenue addition to the total revenue by selling one more unit, marginal cost addition to the total cost by producing one more one more unit of the output. And then incremental analysis we discussed in that context where it is not, when the change is not per unit, when the change in the junk. Generally the study of incremental change comes and that is typically known as the incremental analysis.

(Refer Slide Time: 19:58)



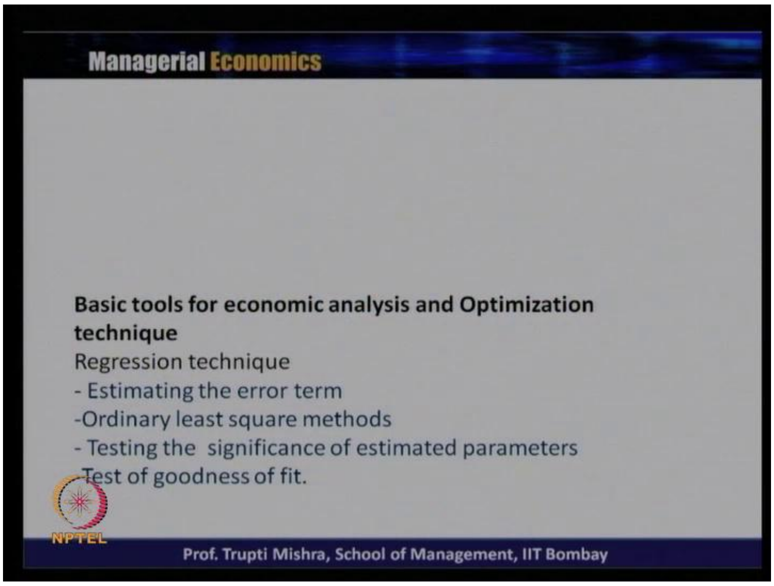
Then we discussed about the functional relationship between the economic variable that is in term of linear, non-linear and polynomial function. Then we discussed about the slope and how slope is getting used in the economic analysis, basically to study the relationship between the dependent variable and the independent variable.

(Refer Slide Time: 20:17)



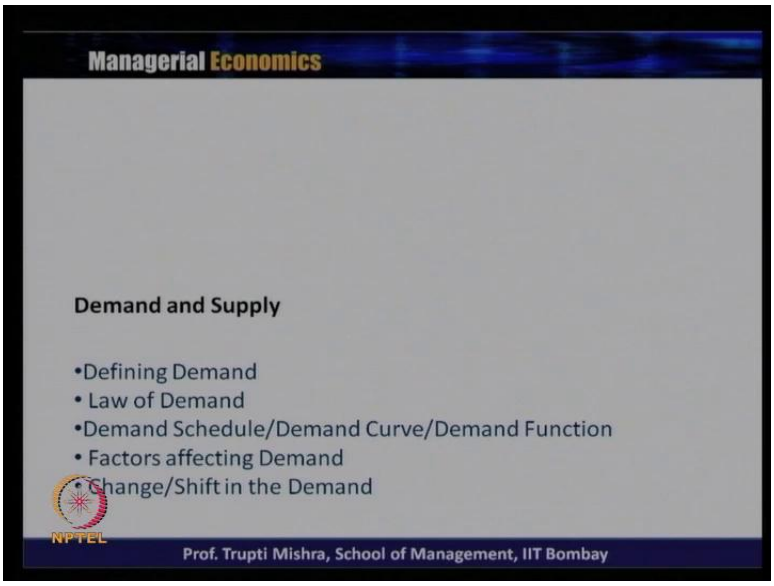
Then we discussed about the derivative of various functions and then we discussed about the optimism technique, typically the constant optimism and constant optimism either it is a case of profit maximization or the cost minimization case. So, we we understood the substitution technique and the Lagrangian multiplier method to do this profit maximization and the cost minimization typically in the optimism technique.

(Refer Slide Time: 20:47)



Then the regression technique is being cover and in the regression, we cover the estimating the error term, ordinary least square method, testing the significance of the estimated parameter and test of goodness of it.

(Refer Slide Time: 21:05)

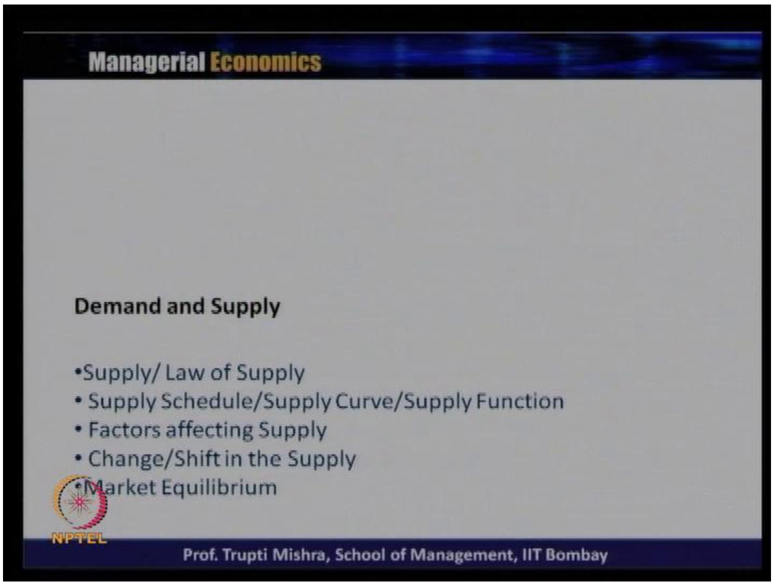


Then module two talks about the theory of demand and in this module the discussion started about this by defining demand then the law of demand law of demand essentially talks about that how price and quantity demanded they are related. So, other things being remaining constant, the quantity demanded and price they are inversely related. Then, the demand schedule basically the numerical value assigned to both the price and quantity demanded in different time period that gives us the demand schedule.

Demand curve is the graphical relationship between the price and quantity demanded and demand function is the the formulating the function on the basis of that relationship between the dependent and the independent variable. Then the factors affecting demand has been discussed, that is mainly apart from the price there is some non price factor also affects the demand. And on the basis of the factors the change and shift in the demand takes place, whenever there is a change in the price that shift the that shift the demand from along the demand curve from one point to another point.

And whenever there is a change in the non price determinant of the demand, the demand curve shift entirely to the right in case of increase and left in case of decrease.

(Refer Slide Time: 22:29)

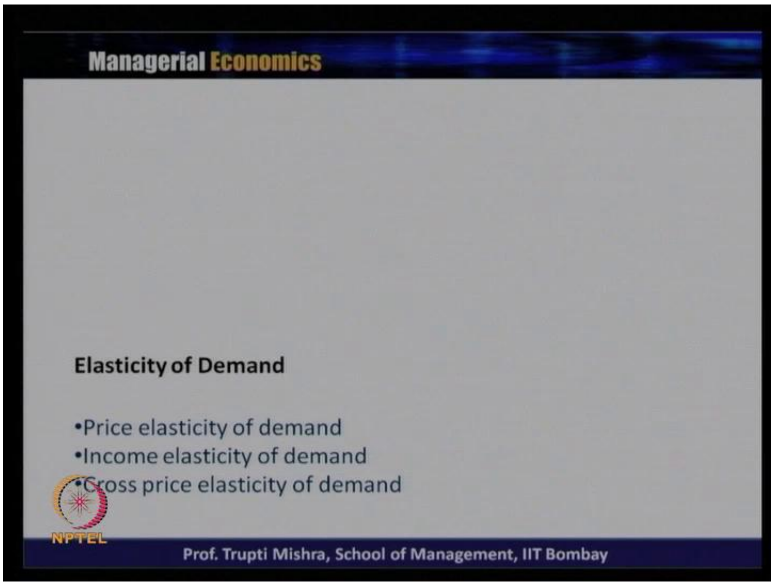


Then supply and law of supply is been discussed and law of law of supply is again other things being constant there is a positive relationship between the price and quantity supply. Supply schedule is the numerical value representation of supply and the price in a different time period. Supply curve is the graphical representation of the relationship between the supply and price, and supply function is the mathematical relationship between the supply and the price.

Then there are a few factors which identity affects the supply, and the change in the shift in the supply is related to this factors, if it is price then the supply is shift, in the supply is along the supply curve from one point to another point. Whereas, if there is a change in the non price determinant of the supply, then the supply curve shift to the right in case of increase and shift to the left in case of decrease.

Then the intersection of demand and supply curve is generally leads to the market equilibrium, and market equilibrium is one where the market demand is equal to the market supply. So, price and quantity they are inversely related, but what is the magnitude of change in the quantity demanded, whenever there is a increase or decrease in the price, that is being studied through the price elasticity of demand.

(Refer Slide Time: 23:47)

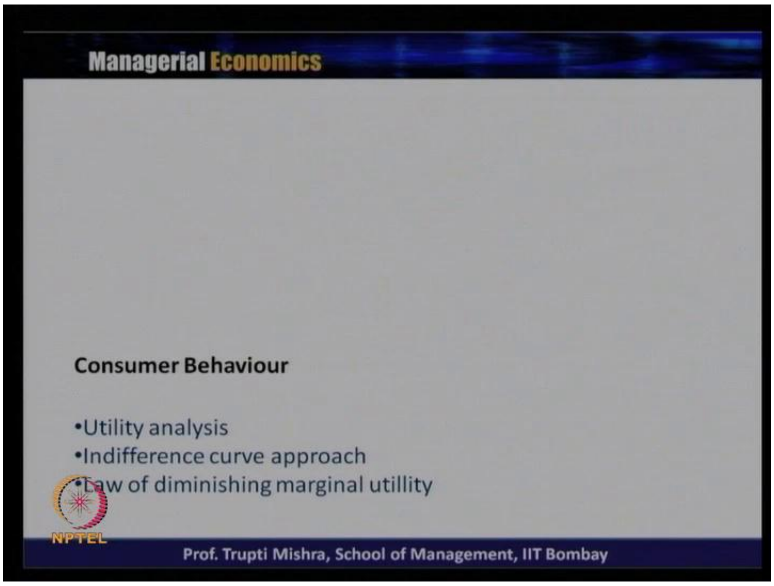


So, this talks about the responsiveness of the consumer to change in the price and corresponding to what is the change in the quantity demanded. Then income elasticity of demand income elasticity of demand is again the change responsiveness of the consumer or the responsiveness of the quantity demanded due to change in the income.

And then cross price elasticity of demand essentially talks about the relationship between the change in the price of the substitute goods and or the complimentary goods that is related goods in production and what is the effect in the quantity demanded. So, if price of the substitute good is changing when the quantity demanded of the present good is increasing and if the price of substitute good is decreasing, then the quantity demanded is again decreasing over here.

So, cross price elasticity of demand essentially talks about the magnitude of change in the quantity demanded, when price of the related goods that is either substitute or complementary changes there changes.

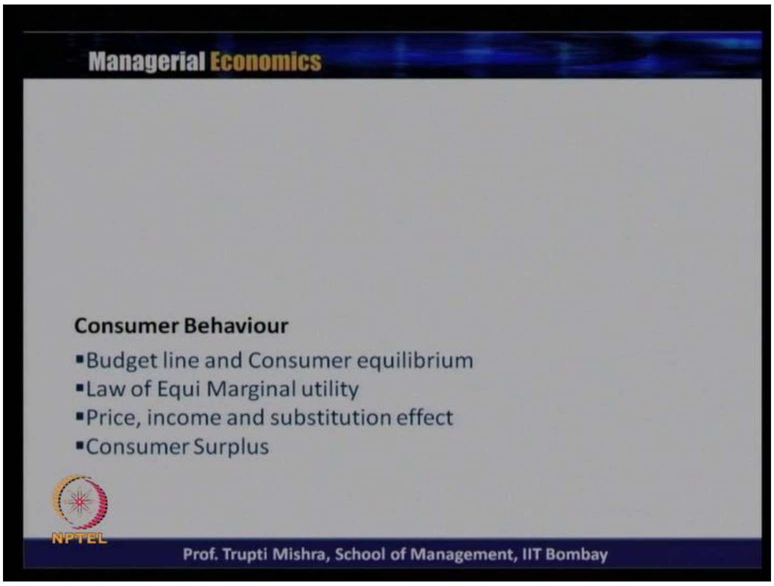
(Refer Slide Time: 24:57)



Then consumer behavior is being studied on the basis of the utility analysis; utility analysis is two types one is cardinal and other is ordinal, where the utility can be measured on the basis of the units called utility that is generally cardinal utility analysis, where utility cannot be measured that is only ranked on the basis of preference that is ordinal utility analysis. On the basis of ordinal utility analysis, the indifference curve by approach has been studied, and indifference curve is nothing but the locus of different points are that gives the combination of two goods, which gives equal level of satisfaction.

And indifference curve has few properties that has been discussed; and then the law of diminishing marginal utility is discussed and law of diminishing marginal utility states that other thing being equal, when the consumer go on consuming the products the utility what he receive from consuming that product that generally goes in a negative direction.

(Refer Slide Time: 26:01)



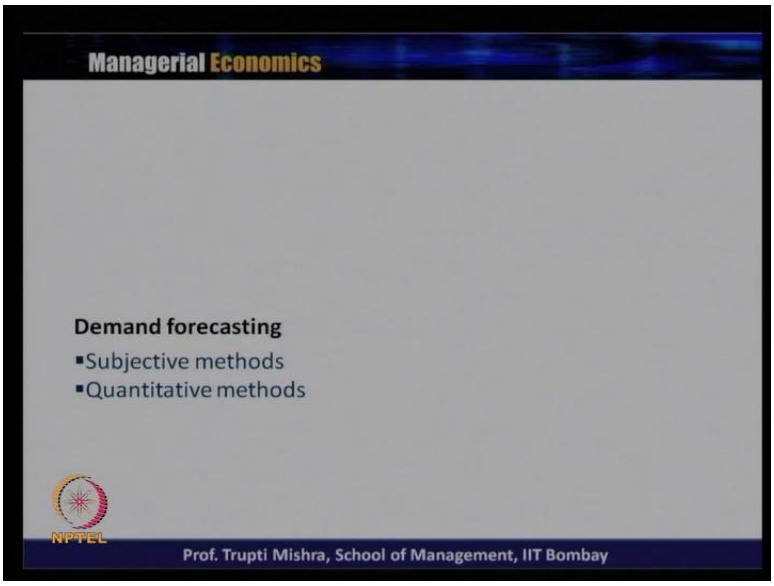
Then the budget line is being discussed and budget line is nothing but the individual budgets, what he can afford to the afford from the combination, the product combination. And the budget line is being discussed and the basis of the budget line and indifference curve consumer equilibrium is consumer equilibrium can be found. And consumer equilibrium is the point where the slope of the budget line is equal to the slope of the indifference curve.

Then law of equi marginal utility is discussed which talks about the utility what we get from the by by by from from the different product that has to be same. But, is the ratio of the marginal utility of both the ratio of marginal utility and price of both the goods has to be same; at any point of time if one is more than the other the consumer will spend more on the that product where he gets a higher level of utility.

When the change in the price takes place it has two effects one is the change in the quantity demanded and also the change in the other product. So, in this context the price income and substitution effect has been discussed and the price effect is always a combination of the income effect plus the substitution effect. Then at the end the consumer surplus concept of consumer surplus has been discussed and concept consumer surplus is a situation where this is the difference between what consumer is ready to pay for the product and what actually he is paying.

And this difference is generally known as the consumer surplus, because consumer is ready to pay more, but whatever the market price for the product product that becomes less.

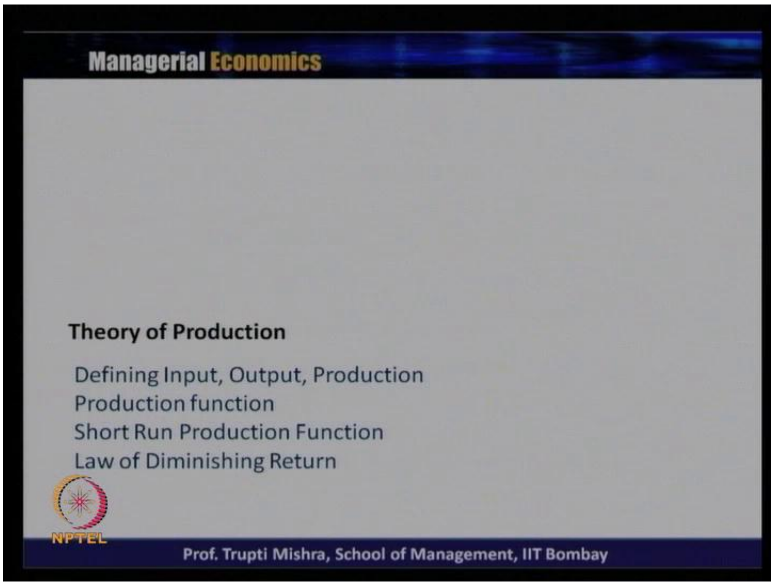
(Refer Slide Time: 27:45)



Then the demand forecasting is being discussed and demand forecasting in term of two methods we discussed that what is the need for the demand forecasting, what are the steps in the demand forecasting. And two methods one is the qualitative for the subjective method like the consumer opinion survey market stimulation test marketing that in the subjective method.

And in the quantity method we talked about the econometrics method, trend projection method, barometric method and the smoothing techniques to understand that how demand forecasting is being done following the different method in the different situation. Module 3 talks about theory of production and cost, here the topics related to the production and cost being covered.

(Refer Slide Time: 28:37)

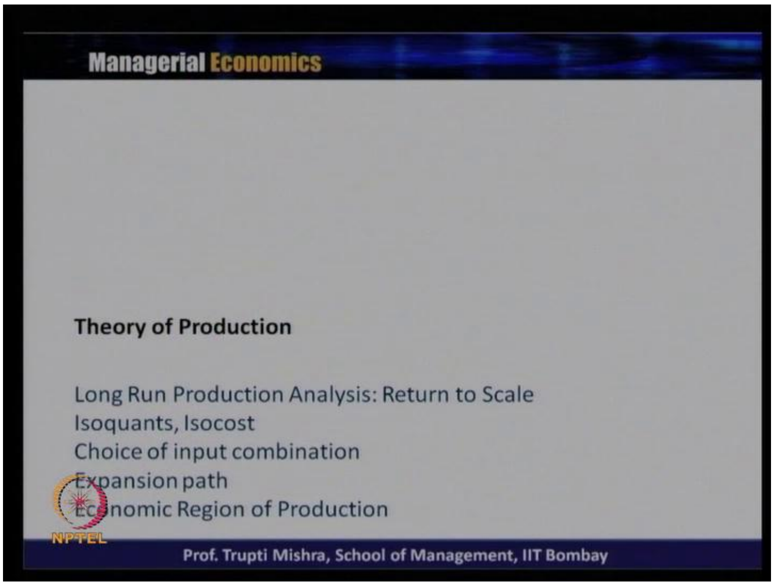


So, this theory production the definition of input output and production and the to start the to start the topics, we did the defining input output and production. Then production function different kind of production function, then short run production function and law of diminishing return; so short run production function is analyzed with the law of diminishing return or the law of variable proportion.

And law of variable proportion talks about three stages of production process, on the basis of relationship between the total product average product and the marginal product. And for the rational producer it is always ideal to produce in the stage two of the production process, because stage two is the stage two is the stage where there is a efficient utilization of both the input that is fixed input and variable input.

So, in this is a short run production analysis, one unit has to be fixed and that is why there is a fixed unit. And stage two is one where there is a efficient utilization of both the fixed input and the fixed inputs and the variable inputs and all the rational producer they prefer to operate in stage two of the production process.

(Refer Slide Time: 29:47)



Then the long run production analysis is discussed with the help of return to scale and return to scale talks about three kinds of return to scale that is the constant return to scale, increasing return to scale and decreasing return to scale. So, constant return to scale is one where the change in the output with respect to change in the input the proportion is remain same.

Then in case of increasing return the proportional increase in the output is more than the proportional increase in the input. And in case of decreasing return the proportional increase in proportional, increase in the output is less than the proportional increase in the input. In that context also the homogeneous production function is being discussed homogeneous production function is one where it takes a value equal to one it is the cost and return to scale.

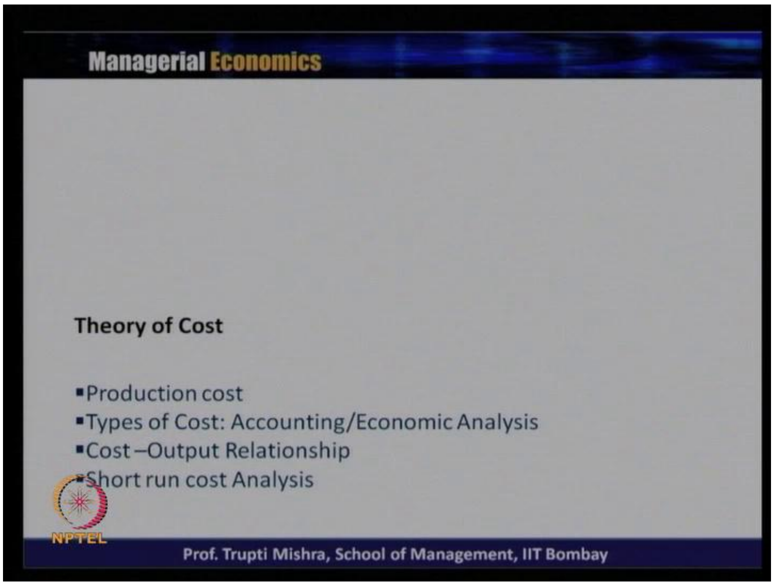
Degree of homogeneity or this generally when the degree of homogeneity is one there is a linear homogeneous production function it is a cost and return to scale, if the degree of homogeneity is greater than one it is a case of increasing return to scale. And if the degree of homogeneity is less than one this is the case of the decreasing return to scale.

Then (()) being discussed isoquants is the indifference curve of if you remember this indifference curve of the consumer theory the same indifference curve indifference curve is the product indifference curve. And it is the locus of point of two different input combination, which gives the same level of same level of production isocost is the line which gives the different combination of the product whatever is being used for the. Whatever is being used for the production process slope of isocost is the ratio of the input prices and slope of isoquant if it is a ratio of the marginal product of capital and labor if the production function consist of two inputs capital and labor.

Then choice of input combination is being discussed in the case of maximization and minimization using the Lagrangian multiplier as a constant. Then expansion path is being discussed looking at the producer equilibrium at the different different isocost and isoquant level. And then economic region is being discussed because isoquant is one it is in if it is in normal isoquant generally one input can be substituted for the another input.

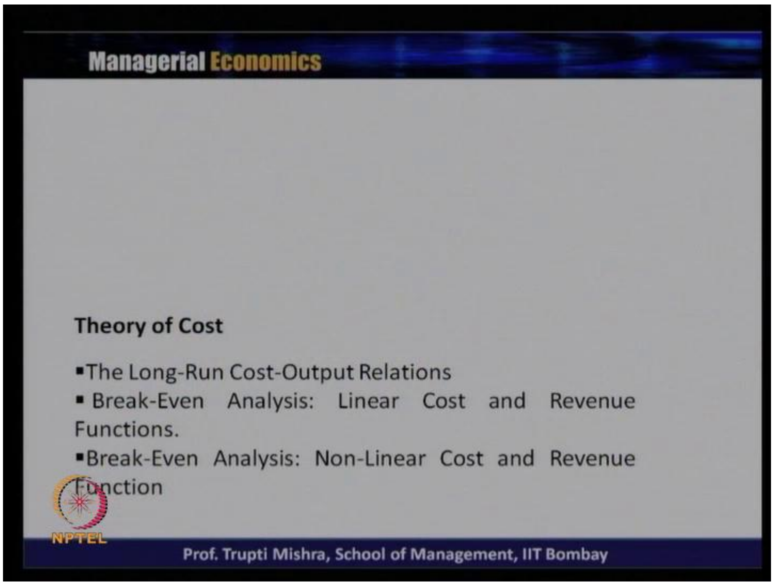
And that is why at all point of isoquant we get the same level of output, but up to how long this inputs can be substituted to one to another and which one is the efficient region of production, that we discussed through the economic region of production.

(Refer Slide Time: 32:32)



Then this module covers about the cost typically the production cost we discussed about the types of cost that is accounting, that is required for accounting and economic analysis. Then cost and output relationship, then the short run cost analysis where there is one fixed cost and one variable cost. And in the short run all the cost curve is used except the average fixed cost, because average fixed cost is generally rectangular hyperbola it never touches any of these axis.

(Refer Slide Time: 33:03)

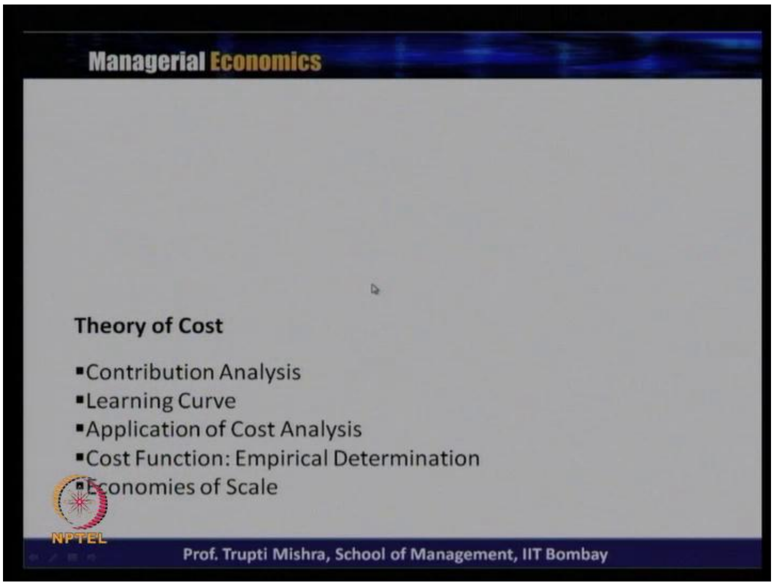


Then the long run cost output analysis is being discussed and long run cost output relationship basically that why the long run average cost curve is used here and then we discussed the long run marginal cost curve. And how long run average cost curve also serve as a planning horizon for the producer and it also causes envelope curves, because it envelopes number of short run cost curve in the different time horizon.

Then break even analysis is being discussed on the basis of linear cost and revenue function and non-linear cost revenue function. So, in case of linear cost and revenue function the profitable region is generally there is infinite till that a firm can get profit, till the time the revenue is greater than the cost. And here we get only one inflexion point where revenue is equal to cost, but in case of a non-linear cost and revenue non-linear break even analysis there is a range has been identified, where the firm can maximize the profit on the basis of higher revenue and lower cost.

And it is not there is a limit and on that basis this range has been difficult, here we get two inflexion point where total revenue is equal to total cost one at the beginning and one at the end of the profitable region.

(Refer Slide Time: 34:20)



Then contribution analysis learning curve has been discussed, then application of cost analysis in the different function, then cost function empirical determination. And finally, the economies of scale where we discussed about the real economies of scale and pecuniary economies of scale. Pecuniary economies of scale is the basis that one long run average cost curve is decreases, because of advantage of economies of scale.

And pecuniary economies of scale talks about the cost advantage in the term that the input price is less and that is why they are economies of scale. But, real economies of scale there is less usage of the physical input and that is why we get the real economies of scale cost advantage.

And real economies of scale has production economies of scale, then technical economies of scale, managerial economies of scale and also the sales and marketing economies of scale. Then we discussed about diseconomies of scale diseconomies of scale is basically contributing that why long run average cost curve is increasing after the minimum point.

And it is noticed that the maximum diseconomies of scale generally comes from the managerial diseconomies of scale and that is why there is a increase in the cost of production. Then the last module talks about or the it discusses about the theory of market and the pricing practices.

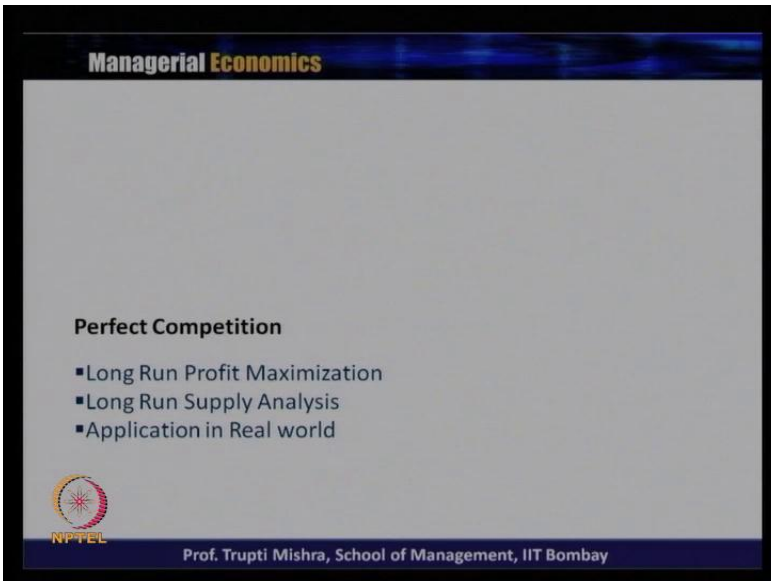
(Refer Slide Time: 36:01)

So, the classification of market definition of market classification of market on the basis of different parameters is being discussed. And the focus here is on when the market is classified on the basis of entry condition, the product and what is the what is the competition level on that basis the classification is done.

So, the first kind of market form of market is perfect competition, we discussed about the feature of perfect competition, the demand and revenue, short run equilibrium market supply and firm supply analysis. So, perfect competition is the one extreme form of market, where there is no competition at all. And the but all the firms they are price taker price decided by the demand and supply forces they maximize the revenue by selling more output.

The equilibrium condition is same again, this they always follow equilibrium condition where marginal cost is equal to marginal revenue and on that basis generally they identify the price in the corresponding demand curve.

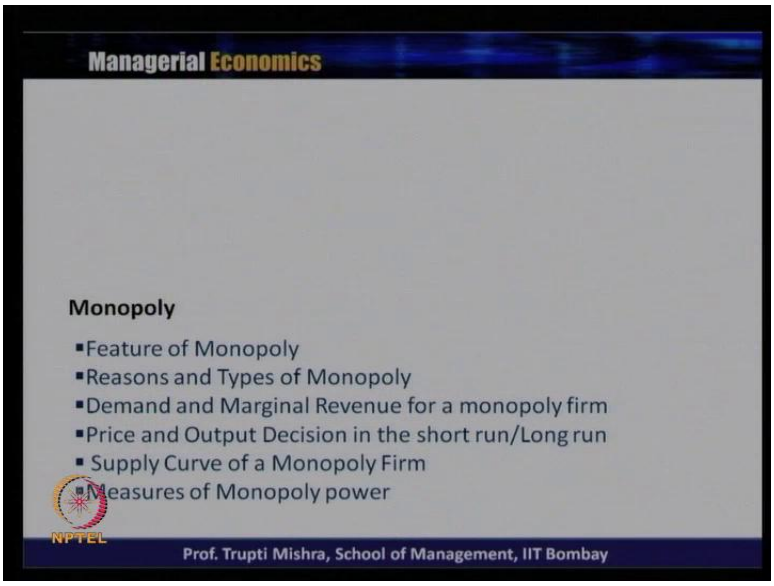
(Refer Slide Time: 37:08)



The supply curve in case of perfect competitive market is typically the defined through the marginal cost curve, that is the segment where it lies above the minimum point of the average variable cost. Then long run profit maximization is seen and if short run is someone if the firm is making loss at least long run they get the normal profit.

So, there are three kind of situation the firm gets either they get a normal profit or they get a loss or they get a supernormal profit. And perfect competitive we also discussed that what is their application in the real world taking the example of the stock market and credit card industry.

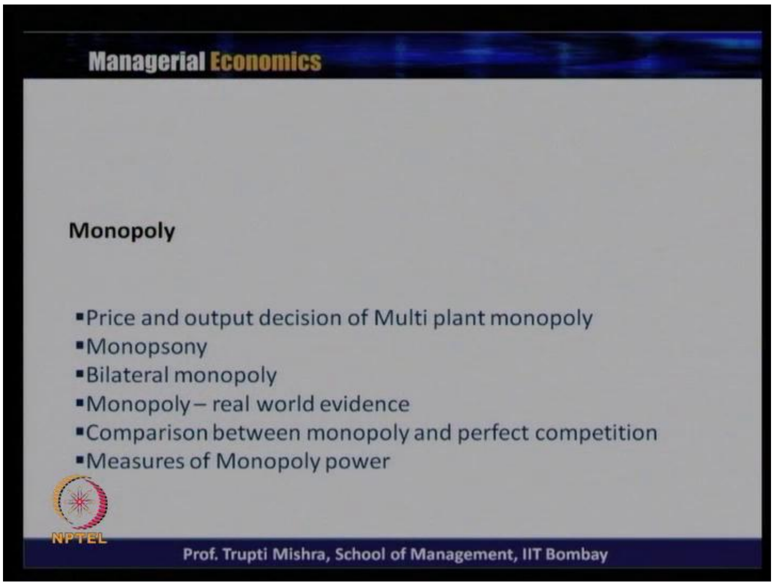
(Refer Slide Time: 37:37)



Then the second kind of market structure is monopoly this is another extreme in the market form, there is only one seller one seller and large number of buyers as compared to the large number of buyers and sellers in the market. Then then the regions and the types of monopoly discuss, that how the market form emerged as a monopoly market; the demand revenue of the monopoly form discuss and also the price and output decision in the short run and the long run.

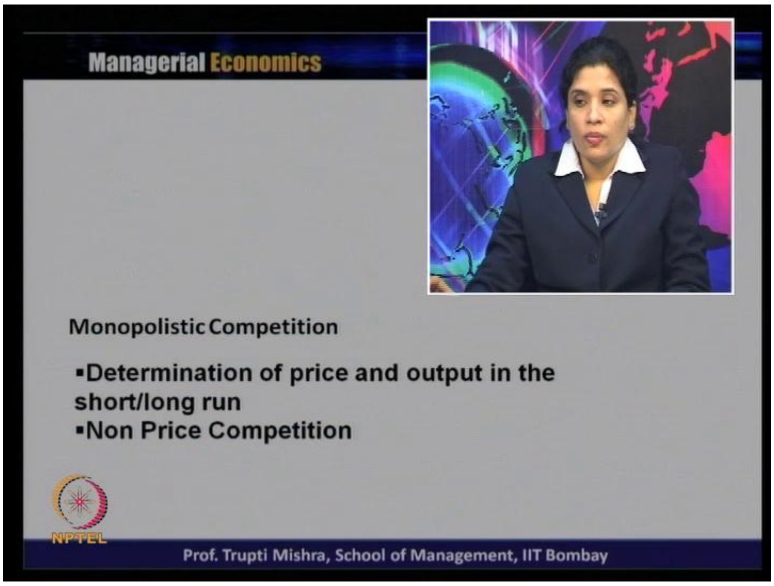
Then we discussed about the supply curve of monopoly form if you look at there is absence of supply curve of the monopoly firm. Then, the measurement of the monopoly power is done using different methods like learner index HSI index market concentration and also on the basis of the cross price elasticity of demand.

(Refer Slide Time: 38:29)



Then Multiplan monopoly is talked about like when the monopoly has different plans to produce the output. Then monophony market monophony form of market is discussed, where it is just reverse to the monopoly market where there is one buyer and the number of sellers are many. Then the bilateral monopoly is being discussed when there is one buyer and one seller and then some real world evidence has been taken for the monopoly; and then the comparative comparison between the monopoly and the perfect competition.

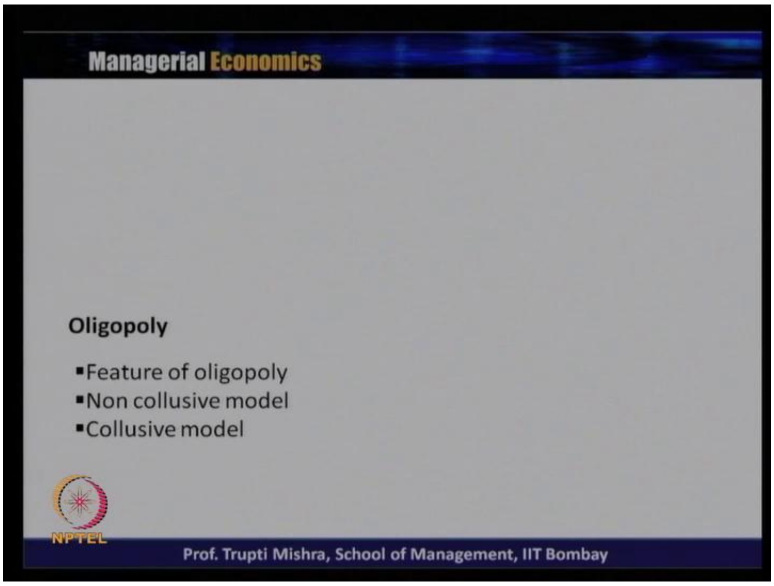
(Refer Slide Time: 38:58)



Then the ideal mix of monopoly and perfect competitive market structure is the monopolistic competition. So, the discussion is on that monopolistic competition on the basis of determination of price and output in the short run and the long run, the significant feature of monopolistic competition is the product differentiation, where there are large number of firms. But, all of them they produce a differentiated product, because all of them they produce a differentiated product, their product is different from each other either on the basis of the quality on the basis of the services associated with it. Or on the basis of packaging or on the basis of the content; and since they have some freedom about the product differentiation also they decide the price of the product.

Here the competition is mainly on the basis of non price rather than price, because each of them they advocate that their product is different in term of the other product. Monopolistic competition has taken some feature of the perfect competition and some feature of the monopoly.

(Refer Slide Time: 40:06)



Then the oligopoly market structure is being discussed and typically the feature of oligopoly and there is one significant feature of oligopoly is the interdependence between the firms in the market. And when it comes to interdependence in the firms in the market it is in two way, one is where they compete with each other and other when they collide with each other. So, when they collide with each other that kind of that kind of oligopoly generally known as the collusive model of oligopoly, and when they compete with each other that generally known as the non collusive model of oligopoly.

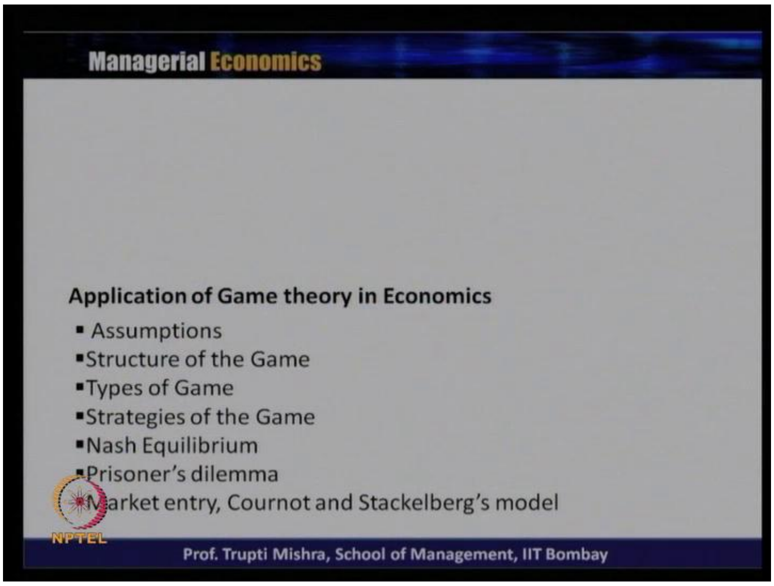
So, we discuss about the Cornet models, Stackelberg model and Kink demand curve approach in case of a non collusive model, when the case of duopoly. How duopoly is basically the case of two sellers and large number of buyers and at we examine all this non collusive model taking the duopoly form. So, cornet model talks about the fact that even if the firm knows that the other firm is going to change their revise, their plan and output and price till they believe that they are going to follow whatever there in the past period.

And they continue they go on continuing the same behavior and finally, in that case they reach to a sub optimal solution rather than the optimal solution. In case of Stackelberg model it is a leader follower models generally one firm as a leader and set up the price and set up the output and other firm generally follows it. Kink demand curve talks about typically the price rigidity, how increase in the price is not matched by the competitor, but decrease in the price is always matched by the competitor.

And in that case the whatever the firm whatever the demand curve the firm face it has a kink on it and the corresponding marginal revenue curve has gap, always the marginal cost pass through the gap and that is why the gap there is no change in the price of the firm. So Kink demand curve model typically talks about the price rigidity in the oligopoly market. In case of collusive model we discuss about the price reduced model cartel.

Cartel typically the centralized cartel on the market sharing cartel and we talk about the price (()) model that is on the basis of local price leadership, dominant price leadership and the barometric price leadership.

(Refer Slide Time: 42:38)



Then since there is a group here is where in case of the oligopoly market and there is a interdependence between the firm, their behavior is a strategic behavior known as a strategic behavior, because what is best for one firm that is always dependent that what the other firms doing on their price and the output plan. So, in that context the game theory has been introduced to understand the economic behavior.

So, the game theory is discussed on the basis of their assumptions the structure of the game structure of the game covers from the players to strategy. Then the types of game on the basis of the end outcome and then the strategy of the game in term of pure strategy max min, min max dominated dominant strategy.

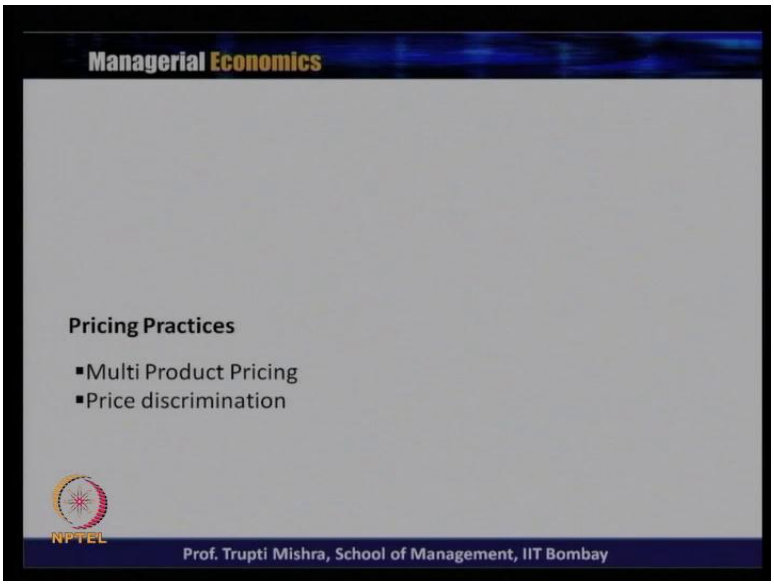
Then one of the important contribution of game theory to the economic analysis the Nash equilibrium. And the Nash equilibrium is being discussed taking into the both where there is a dominant strategy for the player, and when there is a absent of the dominant strategy of the player.

So, Nash equilibrium talks about the that what is the this is the point this is the this is the point where this is the best outcome to the player irrespective of whatever the other players does in their whatever the opponent does in the market. Then the prisoner dilemma is discussed which is a interesting phenomena of the fact that where cooperation is beneficial it is difficult to maintain cooperation. And that is why the players whether they are the individual, whether they are the firms, whether they are the country they reach to a sub optimal solution, where they are not getting maximum profit.

But, since cooperation is difficult to maintain and even if cooperation is beneficial they are not getting into the cooperation and they are reaching into the sub optimal solution. Then this game theory is discussed on the basis of it is applicability on the market entry game typically, when the market is when the firm is trying enter into the market where a monopolist firm is facing, what should be the strategy for the monopolist firm that is existing firm.

And what should be the strategy strategy for the entering firm then Cornet and Stackelberg model, what kind of game whether it is a simultaneous game, whether it is a sequential game that generally discussed in case of the Cornet model and the Stackelberg model.

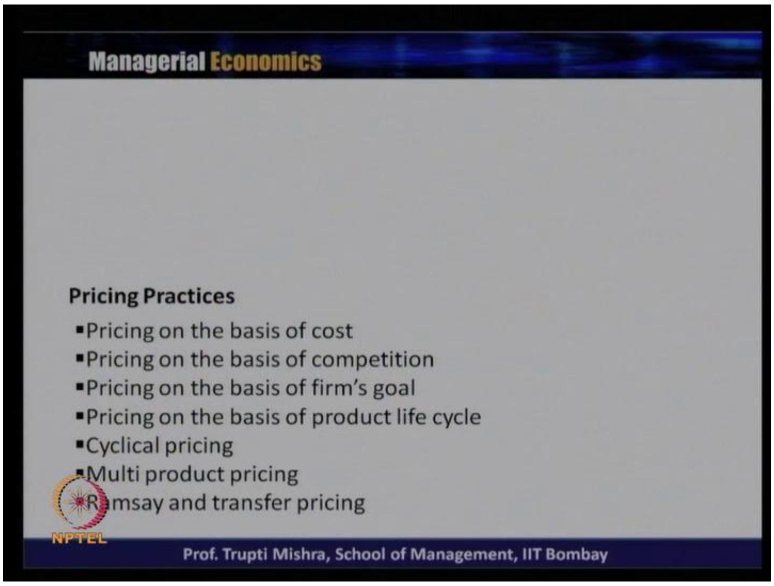
(Refer Slide Time: 45:01)



Then the last topic for this course version pricing practices typically the multiproduct pricing and pricing discrimination is being discussed. Price discrimination is basically discussed that when the monopolist charges, different prices to different consumer group in the different time zone and different market. On that basis three type of price discrimination is discussed that is first degree price discrimination, where the price is charged on the basis of willingness to pay. And in this case the firms motivation is to take out the consumer surplus from the consumer, second degree price discrimination where the discrimination is on the basis of quantity not on the basis of price, and typically this is a example of the meter pricing.

Then the third degree price discrimination where the market is segregated on the basis of the consumer responsiveness on the elasticity of demand. And always higher price is charged in case of inelastic demand inelastic market a lower price is charged in case of the elastic market.

(Refer Slide Time: 46:06)



Then pricing practices is being discussed that is on the when the pricing is on the basis of the cost, pricing is on the basis of the competition, pricing is on the basis of the firm's goal. And pricing on the basis of the product lifecycle, cyclical pricing, multiproduct pricing, Ramsay and transfer pricing and also on the basis also we discussed about the retail pricing.

So, generally the pricing strategy differs on the basis the on the basis whether the basis is cost, whether the basis is competition, whether the basis is product lifecycle, whether it is on the basis of firms goal or the objective or whether it is a transfer pricing. And so these are the topics that has been covered in this course managerial economics. So, to conclude or to give end note we can say that this course is an attempt to provide the understanding of basic economic theories, principle and concept and their application on the managerial decision problems.