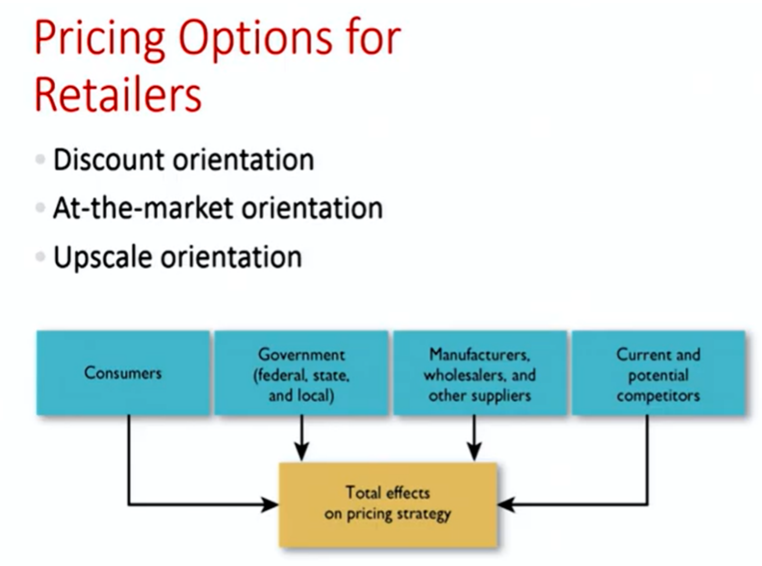
Retail Management
Prof. Swagato Chatterjee
Vinod Gupta School of Management
Indian Institute of Technology - Kharagpur

Module No # 06
Lecture No # 30
Pricing in Retail

Hello everybody welcome to this NPTEL swam course on Retail Management. This is Professor Swagato Chatterjee from VGSOM, IIT Kharagpur, who is taking this course for you. We are in week 6 this is lecture number 30 and we will be discussing pricing in retail in this particular lecture.

(Refer Slide Time: 00:44)



So what are the pricing options for retailers, there are 3 options that generally are there one is discount orientation that means you are trying to give discounts over multiple purchases, volume purchases, and also when certain products has to be cleared. So, focus on discount orientation can be you can see that there will be lots of retail outlets which are big retailers. Who try to focus on having more footsteps in their organization in their space basically will go for discount orientation.

And then comes the at-the-market orientation, at the market means whatever is the market price, in the same price, reasonable price, value for money price, you will be trying to sell your product. And then comes, the Upscale Orientation which is focusing on products and services which are costlier than normal market price. So, these are the 3 orientations and cask and the under company can choose which orientation they will go for ultimately at the end of the day.

Because depending on that they will be giving the products the services that they have in their mind. Now this is also in sync with what kind of locations you are choosing, what kind of services you are choosing, sometimes it is also related to what kind of products merchandising that you are doing. For example, a discount-oriented person will focus heavily on supply chain activities they will try to focus on getting products at the lowest rate as low as possible.

And that is how they will be selling so efficiency will be a very important factor for a discount-oriented company. Probably it is also an important factor for the Market Oriented Company. However, upscale oriented company probably supply chain will not be the major player, their business comes from the brand value, the branding that they created, the recognition that they create. So, they will focus on that recognition part, they will focus on the marketing part, the branding part, rather than the supply chain part.

Now there are many other factors other than these 3, 4 things which impact the total, effect of car pricing strategy. For example, Consumers, Government like federal, state, and local, manufacturers, wholesalers, and other suppliers and current potential current and potential competitors all these together create your pricing strategy which one of these 3 will choose. For example, your target consumers if they are very price sensitive you will go for discount orientation.

If they are value for money sensitive it will go for at the market orientation, if they are image sensitive you will go for upscale orientation. So obviously consumer's plays a very important role in the choice of your product pricing strategy that you will you is interested to take. However, the government also plays an important role, for example if how are the taxes that comes into the pricing.

Is it, like for every separate federal structure you will have separate kind of taxes like your indirect taxes? Earlier if you remember there were service taxes and VAT we used to pay to the state government. And then what happened is there were there came a GST, which is a synchronized goods and service tax indirect tax system where you pay directly the tax to both state government and the central government.

Now that is the federal structure that applies in India. There are other countries where there will be different kinds of taxation systems, the income tax structures will be different, the regulations that you have to follow will be different. So, here all of these will ultimately impact the prices that you are trying to pay and government has a huge role in this particular place. So, indirectly not directly sometimes government also probably regulates the price.

If you see that the Pricing Strategies there is a department of consumer affairs, in under I think the ministry of food or protection something like that there will be department of consumers affairs. So department of consumer affairs will basically focus on whether the food items that are being sold are of right nutritional value, or whatever they are claiming you are giving or not, are you giving any fake advertisements. Or fake information in the advertisements or fake information in the product features that you they are writing down.

They will also focus on ultimately the prices; how much are you charging monopolistic price however are you creating some kind of an I would say cluster to create some kind some kind of collusion to make the prices higher. So competition cooperation of organize of India basically, and also this department of consumer affairs both will basically focus on this kind of aspects.

Now whether actually the market is working as per the laws of competition or not, or whether there is any kind of frauds that are happening, scams that are happening or not. Now this ultimately will impact your pricing strategies as well. Because if the cost of companies are if the government is focusing on the price regulation a lot. Then they will know that this guy is holding up lots of items, and that is why they are charging so higher prices of grocery products or let us say vegetables and etcetera.

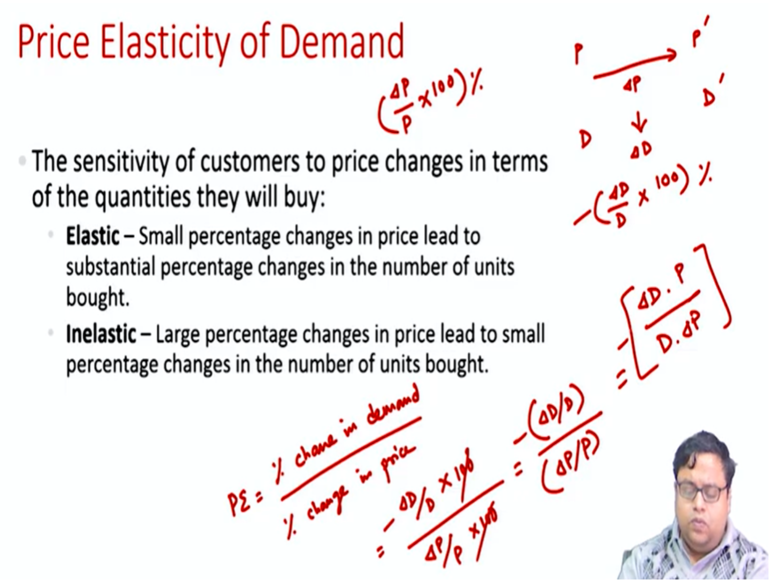
At a certain time or certain month of a year and they can basically sue those people, so here government plays an important role. Obviously, manufacturers, wholesalers, and other suppliers play important role. One important role is that what, is your level of how much you can negotiate with them, your negotiation power actually talks about how much margin of the overall margins how much shared the retailer will get, and based on that the retailer will decide that which kind of these strategies they will go for.

Also, manufacturers wholesalers and other suppliers if they are very efficient in manner, if the supply chain is efficient, then the retail price will come down because the same amount of profitability can be incurred with the lesser price. Current and potential competitors also plays a important role often we choose a price in comparison to our competition we see what our competition are doing and based on that we try to create our strategy.

We do not want to deviate a lot, because if we deviate a lot then the positioning of the company within the schema of person's mind, they compare we always compare that**.** I am comparing x with x 1, x 2, x 3 if x 1, x 2, x 3 and x s prices are very different then they will not be compared similarly. So, you also have to know what who is your current competitor who is a potential competitor and you, have to price accordingly keeping those things in mind.

So when we talk about consumers, I just told that consumers can be price elastic or pricing as interesting in other words price sensitive and not price sensitive. And that is measured by price elasticity and based on that you can choose that what kind of price you will take. So what is Price Elasticity?

(Refer Slide Time: 08:22)



When I say price elasticity that means basically the definition of price elasticity is, percentage change in demand divided by percentage change in price. So, for each unit percentage change in price how much percentage changes demand is happening? So let us say your price was initially P 1 now it becomes P 2 and this change is delta p**.** So I will not write P 1 and P 2 let us write P and P dash and that change are and delta P delta P change happened.

$$PE = \frac{\%\ \text{change in demand}}{\%\ \text{change in price}}$$

For that you are demand dropped so D to D dash and this drop is delta D. So, then how much is the change in price delta P? What percent of the original price delta P by P into 100 this percent this is my percentage change in price. If that is the 2 then also this by this into 100% this is my percentage change in demand. So if I write that here delta D by D into 100 and delta P by P into 100 this cancels out and we get what delta D by D divided by delta P by P.

$$-\frac{(\Delta D / D)}{(\Delta P / P)} = -\left\lfloor \frac{\Delta D . P}{D . \Delta P} \right\rfloor$$

You can also write it in this way delta D into P by D into delta P so something like that. So, this is basically and you see this drop is negative so this becomes negative and this is my elasticity. Now if my customers are highly elastic that means when the price changes the demand changes highly, that means they are price sensitive. So, small percentage changes in price lead to substantial percentage change in the number of units bought.

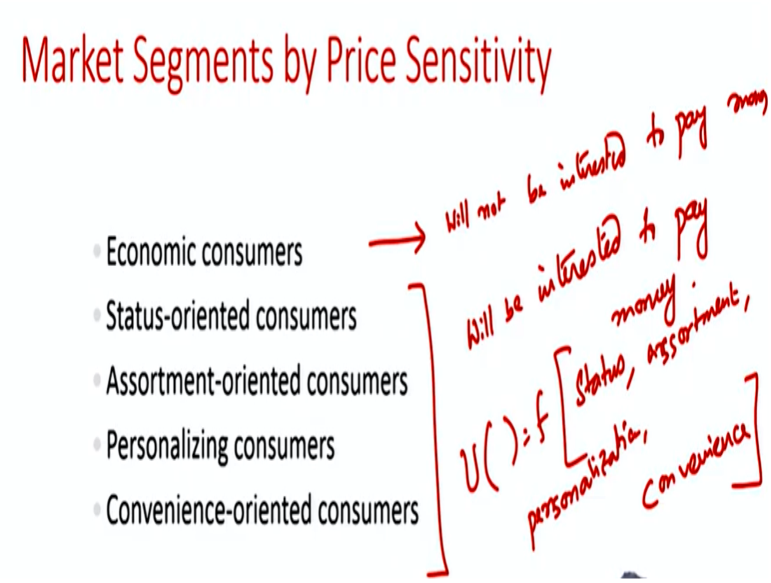
So what kind of pricing strategy? How I will find out the optimal price is very important when your customers are price elastic or price sensitive. However, there are some other cases where the customers are price inverse inelastic. For example large percentage of changes in price lead to small percentage change in the demand. So if the demand does not change with the change of price then I will not bother about the price a lot.

So in those kind of cases the prices are Inelastic. Now we have to also understand in what kind of situations retail situations a price is a customer is price elastic in another situation so customers are priced inelastic. For example impulse buy customers are very much price inelastic they do not, or let us say if it is a high involvement product. Then sometimes customers might not be price elastic much they will be moderate level of elasticity.

But if it is a low involvement product, they will be highly priced elastic if you increase the price they will switch to some other brand. Because people will not even have and have a association with the brand a lot. A very designer product a very up class product which people like a lot if somebody is a loyal customer, loyalty also reduces Elasticity. So another important thing so the more loyal a customer is towards your brand, who are your retail products, retail services that you are providing the less price elastic that person will be.

So they will be absorbing the price they will be ready to pay a little bit more without changing the demand.

(Refer Slide Time: 12:26)



Now when we talk about market segments based customer market segments based on this price elasticity or price sensitivity there are different types of customers we get. One is economic consumers major focus is price, I will try to get as much low as possible the highest amount, so that utility curve the utility function that they have has huge gives huge importance towards price so they are highly price sensitive.

On the other status-oriented consumers are generally not that price sensitive they gives more importance to status symbol the brand may have different values. For example, let us say if I talk about Tata as a brand, Tata brand talks about value for value or trust, Tata brand may not be focus on status. On the other hand, there might be another brand let us say if I talk about Rolls Royce or something like that, they will BMW they will talk about although they some of these big brands comes under Tata motors or comes under tata overall.

But when we talk about tata motors let us say a car which talk about (()) (13:43) which talk about which may talk about let us say engineering efficiency or Indian roads. These other brands which are Jaguar or something like that will talk about a different kind of status. So, the brands which are status oriented if a customer buys them then they will be a status-oriented consumer, that cost of particular consumer’s price sensitivity will be low.

Then comes assortment-oriented consumers, assortment-oriented consumers in what we say is a basically a variety (()) (14:18) consumer. They want assortment, they want different types of products and services that are sometimes bundled or at least available for choice. So, the more you give the choice to these customers the better so, to give choice those from the retail perspective. To give choice they probably have to keep lower quality lower selling products as well.

So high selling high frequency selling products they will keep and low frequency selling product also they will keep. Now if a retailer only kept the high frequency selling product and focused on economic consumers only, they could have achieved higher efficiency in terms of the cost management, than a customer than a company which is focusing on assortment-oriented consumers and keeping assignment of products. Some of them are will be high frequency, some of them will be low frequency.

So, if there is a low frequency product in my assortment that is reducing my efficiency that is increasing my cost so to absorb that cost, I have to increase the price a little bit, so assignment comes always at some cost for a cost consumer it you have to pay a little bit to get a assignment. So that is why assignment-oriented consumers are generally if they are not as price insensitive as status-oriented consumers but in middle of economic and status.

Then comes; personalizing Consumers so they want products, which is personalized towards their own needs. They do not want a mass product they want a product it might not be very status oriented it might not be something which is focused on the product they consume their identity is not externally located. So now what other people say about them they do not bother about those things much.

That is why the products that they consume are not serving the other people or not serving this external locus. Their locus of identity is often internal, they think that whatever I need I will buy, whatever I need I will change the product as for that, I am ready to pay, but that payment should be focusing on, myself my needs. So those are personalizing consumers again they are less price sensitive than status-oriented consumers less price insensitive more price elastic than status.

And the last one is convenience-oriented consumers so again these guys are willing to pay a little bit more but for convenience, not for personalization, not for status, but for convenience.

So, for what basically in all these 4 things these people will not be interested to pay money. They will be in these people, will be interested to pay money, but it depends on what they want to pay for.

So what is their utility function? Utility is a function of what, so utility can be a function of status, symbol, or brand, it can be assortment, or availability, or let us say variety it can be personalization, it can be convenience, and different does that mean that a customer who is convenience oriented does not give value to personalization.

Probably he does or she does but the focus the amount of when I write this function the beta parameter for convenience the amount of weightage that you give to the convenience is higher than the other things for a convenience focused guy. So, the utility function is different for these 4 people but they are willing to pay money. Then what then I have talked about government I have talked about the sub lab which is more or less well known.

(Refer Slide Time: 18:28)

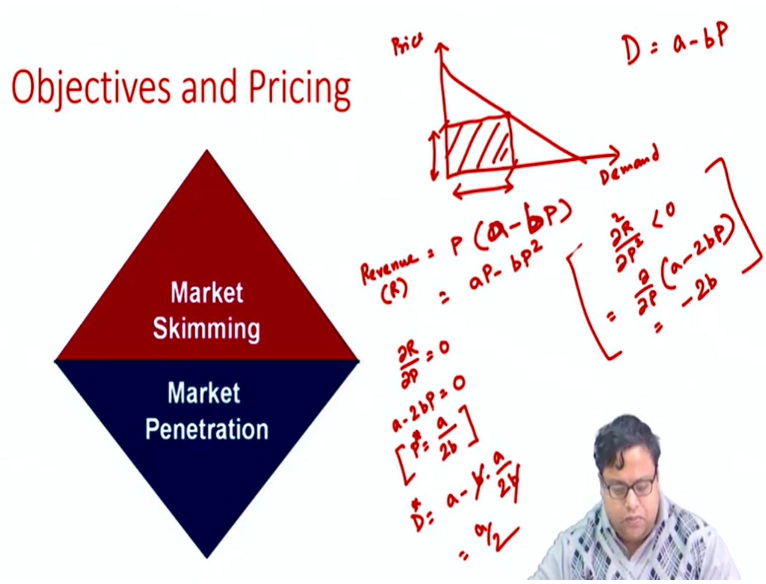
Now let us talk about how competition and retail pricing, competition Retail price. So again, there are 2 types of pricing in this context, one is called market pricing another is called administered pricing. What is market pricing administered pricing**,** what is market pricing retailers often price similarly to each other and have less control over price because consumers can easily shop around.

So consumers can move from one shop to another very quickly and that is why they do not compete with each other directly they say that you stay and I also stay let is divide the customers as much as possible. So, they keep the price at the same range so that is called market pricing. Administered pricing is firms seek to attract consumers on the basis of distinctive retailing mixes.

So one is like the price another is that what kind of retailing mix means what? It will be products that I have, services that I provide, pricing that I provide. So, when I am market pricing is I am colluding almost in a non written way I am colluding with the market and saying that we do not fight with each other let us share the customers.

But in Administered pricing you are charging the price as per your retail mix and then with that whole mixture you are of whole mixture of offering you are going to the market and competing with your competition. So, these are 2 different ways of dealing the situations you can choose which one you want to do.

(Refer Slide Time: 20:06)



Then there can be pricing based on the objective of a farm objective of a retail store. What is called market skimming? And another the 2 means important aspects that comes up here one is called market skimming. What is market skimming? Let us say I am a retail store of apple, let us and my apple products I know that this is the demand curve this is I would say price and this is the demand.

So, as price goes down demand goes up. So, in a monopolistic situation if I only choose one price this is my optimal price the middle point, and this is the area under the curve this is my revenue. So, I will choose as let us say this value and remain comes up to this value so demand into the price this into this if I multiply, I get the revenue that is my optimal price. So let us say this line is let us say P is equal to or let us say demand is equal to a -b P. Let us just rub it off.

Let say demand = a – b P**,** that is let us say the demand curve. Then how much will be this optimal price so then revenue will be price into demand into of a b P. So, if my price is p then ah demand will be a – b P something like that this will be my revenue. So, which is a P - b P square so what value of P this revenue will be maximized? So del R del P has to be 0 and at that particular point where it becomes 0 del R square del square P del square R del P square just one minute erase has to be negative then only it maximizes.

So, what is del R del P? So that means a - 2 b P = 0. So, P has to be a by 2 b at that price what becomes my demand, my demand is basically a - b into a by 2 b so which is a by 2**.** And at this point if you see that at this point whether the price becomes this value becomes what is del square del-del R del R square. So this is del-del P of a - 2 b P this value I just picked up so del-del b of its basically - 2 b.

$$D = a - bP$$

$$\mathrm{R} = P(a - bP) = aP - bP^2$$

$$\frac{dR}{dP} = 0, \frac{d^2R}{dP^2} < 0$$

$$a - 2bP = 0$$

$$[P = \frac{a}{2b}]$$

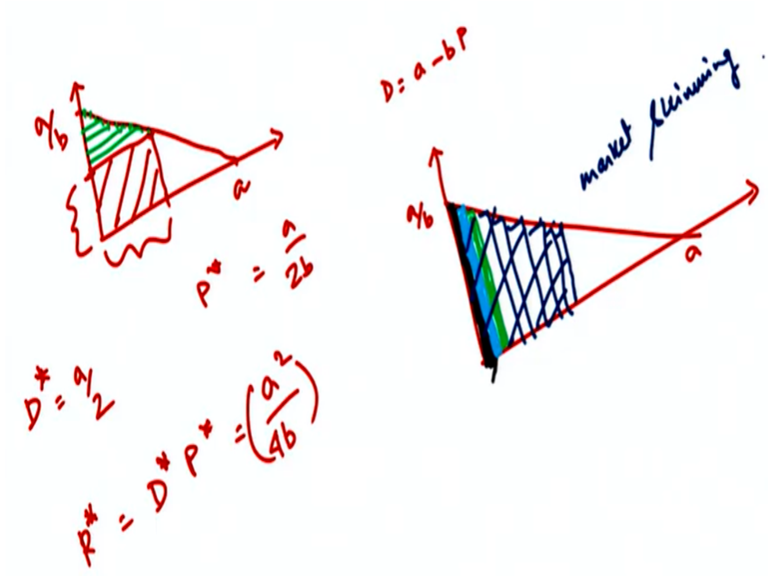
$$D = a - b.\frac{a}{2b} = \frac{a}{2}$$

$$\frac{d^2R}{dP^2} < 0$$

$$\frac{d^2R}{dP^2} = \frac{d}{dp}(a - 2bp) = -2b$$

So, that is basically, if when this happens this is basically a minimum a maximum. So now let us see that these are my optimal demand, this is my optimal price, when the price at this point revenue becomes maximized so what is that value let me just put that.

(Refer Slide Time: 23:55)



So, what is that value what did I say? I said that D = a - b P when b P is 0 when the price is 0 what is the demand a. And when the demand is 0 what is the price a by b and this is my straight line. Now at optimal price comes at a by 2 b that means half of this an optimal demand comes at a by 2 which is also half of this. So you will see this point is where my demand comes and this shaded area is basically a by 2 b in this side and a by 2 in this side so the settled area is multiplication of that.

$$D = a - bP$$

$$D^* = \frac{a}{2}$$

$$P^* = \frac{a}{2b}$$

$$R^* = D^* P^* = (\frac{a^2}{4b})$$

Which is nothing; but optimal revenue which is D star into P star which is a square by 4 b which is that area. So, basically if you know that the area under the demand curve is what the company is trying to capture and they are saying that this is particularly the area of under the curve when I am a monopoly, I can achieve that. Now question comes up is that can I achieve more than that by doing something can I achieve more than that?

So, for that what we do is market skimming because see this is this particular demand curve is also expresses customers willingness to pay, there is one customer who is willing to pay this much amount, but you are charging only this much because that is optimal for one single price. But there are so many customers who want to pay this much or this all these customers are basically paying less than what they are interested to pay.

So, all this area is not captured which you are losing this green area which you could have captured. How you could have captured? If only I have given you the option to charge multiple prices. Let us say I have given you the option, how this is a by b and I have given you the option to charge multiple prices. But up to a certain limit why up to a certain level I will tell.

So, what this iPhone does is they launch at let us say at 90,000, 1 lakh for their iPhone or their yeah iPhone or let us say iPads. So, when they launch only a few persons who are very crazy are means crazy about their particular brand will be able to buy, this will be their demand this much. And this area under the curve will be how much they will capture in the first time period.

In the second time period they price it a little bit lower let us say here, and they will be able to capture this many people. So, that happens in the next month another 1 month down they are pricing it here, and they are able to capture these some this many people this area. Like that they will keep on doing this up to the time when basically the next this thing is ready to be captured the next particular iPhone or iPad is ready to be launched up to that one, they will keep on increasing.

And they will not go below at a certain level because after that their brand name gets affected. So, up to this level slowly, they will first capture these and so on so basically, they will capture the whole area which they were not doing here in this previous case. So, this is called market skimming. So, it is you are skimming up the market and it is like let us say it is a cake and you are taking up layer by layer instead of cutting it like this you are cutting it like this.

So we are taking up layer by layer so that is what called market skimming. It is heavily applicable for products which are let us say high value product. Any new high technology product that gets introduced, it can be a car, it can be a washing machine, it can be a dishwasher which is newer technologies which are coming into a market they will on your brands which are coming into the market they will add up this kind of a strategy.

Another strategy is called market penetration strategy, so market skimming will be done will buy a company which is strong which is which has a very huge strong brand presence in the market. But market penetration will be done by at another kind of a company or a retailer this retailer he is new to the market and he wants to have as much customers acquired as possible. For example, when Ola and Uber came in they were doing market manipulation strategy.

They are being trying to be sure that I will charge such a price as that my customer base becomes bigger. And by that be having that customer big customer base I know that which are the routes where people are going most and individual level I want to know that what is this particular customer type sensitivity. They can play with you once you are there with Ola and Uber for every app they can charge different prices.

Let us say in the same location, location a and location b you are you are booking and a person a friend who is booking from a separate phone based on their data about your price sensitivity they can charge you different prices. So, they will be doing it is giving some discounts increasing the price reducing the price here and there a little bit to understand exactly what is your price sensitivity.

How much you change you are demand based on the price that has been offered to you and once that is done, they can basically charge you exactly whatever price that they can estimate is what you are willing to pay. So, before they can do that, they have to have a huge base of customer and that can be done by market penetrating price which is a very low price. If you remember at one point of time the prices of Ola and Uber was less than an auto from one point to another point if you wanted to travel

The auto prices was let us say 200 rupees, but ola uber price was around 150 rupees, and auto guys were saying that why what are they doing they are killing us and this and that. However, this is a short-term occasion what was doing that they; were, understanding you. They were penetrating they were getting you as a customer and they were, understanding you about your needs and based on those needs they were trying to create a pricing strategy.

So, I will stop here on this particular video, and I will continue this lecture on pricing in the next class as well thank you very much for being with me, and I will see you in this next lecture thank you.