**W10 V1 Conditions for Price Discrimination**

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In this video, we're going to talk about why firms would want to price discriminate and the conditions needed for them to be able to do so.

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So let's talk about the insights we have so far.

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One, we know that based on people's choices, they compare their marginal willingness to pay the price.

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So if I drop the price, for example, people will choose to buy more.

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We moved along the demand curve, changing price, holding all those fixed that came from module 3, from the surplus module.

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What we talked about is given that a transaction happens, here's marginal willingness to pay, here's marginal cost and then price effectively serves as a way to allocate surplus between consumers and producers.

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Higher the price, the larger the fraction of the surplus going towards producers, right.

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So keeping that in mind, we're going to start off with those two insights and use those two insights to see how it translates into price discrimination.

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Now from the firm's perspective, when they're choosing prices, they have these two things to keep in mind.

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One is they want to sell as many units as possible.

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Why?

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Because every extra unit gives them more revenues and they've got to think about also lowering the price in order to do so.

1:31  
Because people are not going to buy that extra unit unless it passes that marginal willingness to pay versus price threshold.

1:37  
OK.

1:38  
So you want to maximize the quantity as long as you cover your costs.

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But to do that you may need to lower the price.

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Lowering the price is not cost less because we want a higher price from the firm's perspective to get them a larger fraction of the surplus.

1:53  
So there's this tension, lower price to get more units sold, but a higher price to capture a larger fraction of the surplus.

2:00  
And the question for the firm is, can we do both of them at the same time, right.

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And that's what price discrimination is.

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It's trying to balance out those two forces in a way that's beneficial for the firm and increases their profits.

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Now, how can they do this effectively?

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If you want to price discriminate, one thing you're going to look for is keep that same good, right?

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But then charge different consumers different prices for that.

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Why?

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Because for the extra person getting the good, you can lower the price so that you're able to capture that surplus from that extra unit.

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But then by charging those initial people a higher price, you're able to capture extra surplus from those transactions, right?

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So that's what price discrimination.

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Same identical, good, but different prices.

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Now if you introspect a little bit from your perspective, if you notice the same textbook is available at different prices, what are you trying going to try and do?

2:55  
You're trying to get this lower price as always, right?

2:58  
So this doesn't happen without a lot of effort from the firm's perspective and some magic conditions that allow for price discrimination to happen.

3:08  
So we're going to have a talk about this price discrimination.

3:10  
And if you are doing this in reality in a firm, you have to start there.

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You cannot jump to here's a proposal for price discrimination without making sure these conditions hold.

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That's why we are devoting a whole video to this, and it's the first video, OK.

3:26  
The other thing to keep in mind is always every time we do something is how consumers will react.

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Because as you've seen with the pricing textbook price example, consumers always want cheaper price and they're going to do their best to get those lower prices, OK, The first condition we need for price discrimination is that the firm has some market power, OK?

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It needs to be able to raise prices without having everyone run away, right?

3:52  
Otherwise it cannot raise prices.

3:53  
It's going to be a price take up, OK.

3:55  
So it needs to be able to raise prices.

3:57  
Now when you raise prices, you can have some market power without being a monopolist and that's a more realistic scenario.

4:04  
That's the scenario you're going to be working with when you get a job.

4:07  
However, that's going to be really complicated for eco one O 1.

4:11  
So what we're going to do is we're going to say we're going to think of a monopolist, the one that has all the market power thinking about doing some price discrimination.

4:19  
It's not the only way, it's the simplest way.

4:21  
In ECO 101, we can make sure we get the intuition without making it too complicated.

4:27  
OK, so I'm going to assume a price discriminating monopolist all the way through.

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But I want you to remember it's not specific to that case.

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OK, market power.

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We're looking at a specific case of a monopoly with extreme market power.

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Second thing it needs to do is it needs to have information, right?

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If consumers are different, I need to know how they are different.

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Who is different, right?

4:46  
What exactly is the difference in terms of their willingness to pay?

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Because that's what's crucial for me in order to set prices.

4:53  
OK, this is we're going to be a lot we're going to focus on when we talk about different types of price discrimination.

4:59  
But then the most fundamental assumption is that the firms need to prevent arbitrage.

5:04  
You are buying textbooks for your courses.

5:06  
You're looking for the cheapest price.

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If you can find a way to get a cheaper price somewhere, you're going to do it.

5:13  
If your friend gets a cheaper price than you for the exact same textbook, you will make a deal, right?

5:18  
Your friend will buy 2 textbooks and sell you a textbook at a price that's lower than what you would pay.

5:23  
That is what we call arbitrage, right?

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These side trades that undercut the firm's profits.

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And the firm cannot do price discrimination if it cannot prevent arbitrage, prevent resale among consumers, or at least make it really unprofitable to do so.

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So you could do it, but the effort and expense associated with it makes it not worth it.

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OK, So those are the three conditions we are looking for.

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Now just kind of a heads up on a test when we ask you, do the conditions for price discrimination hold?

5:54  
We see a lot of memorization where students will just, you know, repeat the same three conditions.

5:59  
It's not going to be enough for us here.

6:01  
We need for you to look at the example given and check what those three conditions mean in the example that you're given.

6:09  
OK?

6:09  
So use the definition and not just say firm has market power, firm can prevent arbitrage, right?

6:15  
What exactly does no arbitrage mean in the context that you're looking at?

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Because maybe it's not possible, right?

6:21  
And that'll adjust what your recommendations will be for your firm.

6:26  
OK.

6:26  
So let's go back to the firm's perspective.

6:28  
One, it wants to increase quantity by lowering the price for some consumers, not all.

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And then for those consumers that is already selling to, it wants to keep the price as high as possible because they want to scoop up as much surplus as it can.

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All of this is going to be related to the consumers marginal willingness to pay.

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They're going to choose how many units to buy and how much surplus you can scoop out depends on their marginal willingness to pay.

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So we're going to keep that at the back of our heads.

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That's going to be crucial for us.

6:58  
And remember, that's just related to the demand curve as we've done in all the way in Module 3.

7:02  
So we're just going to bring that piece of information in here, OK.

7:06  
Again, we're going to focus on the different information available because the types of price discrimination you'll do depends on the information you have and on the restrictions imposed on you, either by the market, by ethics, by the government, whatever it is.

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OK, so focus on those details as well.

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So in order to do price discrimination, firms need market power.

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They need information and the ability to use that information.

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And most important, they need to either prevent arbitrage or make it unprofitable.

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In order to engage in price discrimination, The type of price discrimination you recommend needs to be tailored to the information you're given.

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Whether you can do price discrimination or not, you need to look at the situation given to you and explain what those conditions mean in that situation and how it translates into your choice of price discrimination.

8:01  
Answers that just have regurgitated definitions will not get points on an exam.