Title: Principles of Economics

Monopolistic Competition

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[0:00]

So in chapter 17, we will look at a slightly different market structure.

Again, it's imperfectly competitive market structure, so it's between perfectly competitive industry and monopolistic industry.

But it has several important differences from what we assumed for oligopolistic markets.

In monopolistic competition, we assume that there are many sellers.

Here I want you to think that the exact number of producers is not too important.

We could have thousands or hundreds or dozens of providers maybe as small as ten companies in the market.

The importance is that we have a sufficient number of companies that there is a pressure on price in the market to fall to competitive levels.

The other important property is that the product in this market is differentiated or the market is somehow segmented between individual providers.

We will discuss what that means for products to be differentiated on the next few slides.

And just like in perfect competition, we are assuming that there are no barriers to entry or to exiting the industry and… so we can have potentially very large number of producers in the market or small number of producers depending on the conditions on the demand side of the market. Okay?

Let's look at an example of a product differentiation.

Here, the chapter doesn't discuss too much what is meant by differentiation.

We could think that there is some market attribute which differs across individual companies such as… suppose we are talking about restaurant industry and we could have completely non-spicy options all the way to completely spicy options for food.

And think of this as a spectrum where consumers are located anywhere on this line and producers can also choose to locate anywhere on this line.

[3:05]

I'm using the word 'locate' on purpose because really there is no difference in discussing particular attribute like spiciness of food or discussing physical location of producers and consumers.

So let's suppose that the only difference in… among restaurants is how spicy there food is.

And we should think that some consumers prefer very spicy food, some consumers prefer very non-spicy food and there are consumers everywhere along this line.

And when companies choosing how spicy it's food should be, it's considering where all these individual consumers are located.

So suppose that company 1 produces pretty spicy food and company 2 produces relatively non-spicy food.

Here you should think that… notice that some consumers… for some consumers this level of spiciness is just perfect.

You can think that consumer whose preference for spiciness is similar to the spiciness of the restaurant.

This consumer will be a loyal consumer who will choose to buy this food even if this company charges a little bit higher price than other companies.

So here the important property is that even if one company charged slight premium over prices of other firms, some loyal consumers would continue buying from the company rather than switching to another company, right?

As an example, suppose that this company increases its price a little bit.

Now, these marginal consumers will find it optimal to switch.

Now the small preference for this food rather than for this food will not be enough to make the consumer want to purchase food from this restaurant and this consumer will choose to buy relatively non spicy food.

So you should… here the important property is that we have some marginal consumers who choose restaurants based on prices but we have some loyal consumers who are not likely to change restaurants for small price changes.

Similarly, we could interpret a product differentiation as a geographic location of consumers and firms.

[6:07]

Suppose that on the street between Ehwa and Sinchon, we have differently located consumers and suppose we have two restaurants that compete with each other on this street.

Again we have some marginal consumers who live midway between the two restaurants and they would go to the restaurant which is cheaper.

So if this company charges a little bit higher price, these marginal consumers would choose to go to the other restaurant.

On this other hand, we still have loyal consumers for whom the distance to the other restaurant is too much, so even if this company charges higher price, this consumer will choose to eat here rather than travel all the way to the other restaurant.

So it's important in monopolistically competitive markets, the one basic property is that we have different kinds of consumers who prefer different levels of attributes of the product.

And we have some marginal consumers as well as loyal consumers who have… who are differently able and willing to substitute between individual firms.

So given the presents of loyal consumers, we can say that each company in the market has a downwards slopping residual demand curve.

In other words, even if a company charges a little bit higher price than competitors, some loyal consumers would continue buying from the company, so the company's demand would not fall to zero for small price increase.

And similarly, by decreasing it's price, the company cannot hope to capture the entire market.

So the competition between individual companies is limited. Okay?

Let's talk about this graph a little bit.

Once again, we're assuming that everything on the supply side is the same.

We are assuming the same marginal cost curve, same average total cost curve as in perfect competition or as in monopolistic market.

The only difference is on the demand side.

The only important innovation now is a differentiation of products.

[9:03]

So compare to perfectly competitive industry, we have this downwards slopping residual demand curve.

And we can say that on its market segment, each company can act as a monopolist.

So when a company is facing this residual demand curve, it can choose its profit maximizing output level by equating marginal revenue from serving consumers with marginal cost of production. Okay?

And we would say that as long as this residual demand curve is high enough, the price faced by monopolistic competitive firms will be greater than average total cost of production and the company… so each company in the market can make positive profit.

If each company's residual demand curve was lower such as in this situation, at the profit maximizing quantity, price would be less than average total cost of production and each company would be making negative profit in the industry.

And here thinking back to what we said in chapter 13 and chapter 14, we would think that this must be a short run situation.

Surely, in the long run, if this was the situation, companies would exit the market.

And imagine that companies exit the market one after another.

Every time one company exits the market, the residual demand curve of each existing company increases.

So, when a sufficient number of companies exit the market, the residual demand curve of each company in the market would rise to the level of average total costs.

And in the long run equilibrium, we would have the property that the residual demand curve of each company is just tensioned to the average total cost curve of the company which means that each company in the market makes zero profits.

But companies are indifferent between staying in the market, entering or exiting. Okay?

[12:07]

Now let's compare the long run equilibrium in this market to the equilibrium in perfectly competitive markets.

We can say that in monopolistic competition, each company faces this downwards sloping demand curve.

We have... each company is behaving as a monopolist on its residual segment of the market that means that each company has a markup between marginal cost of

production and price that it charges.

We can observe also that companies are not producing at their efficient scale which means at the minimum of their average total cost curve.

So another comparison between monopolistically competitive and perfectly competitive firms is that there is excess capacity.

Monopolistically competitive firms produce less than perfectly competitive firms and charge higher prices where we are interested in the markup of price over marginal cost of production.

Finally, we might think that if monopolistically competitive firms have to advertise their product to invite customers and if there are some variable costs due to advertising, and other inefficiency from monopolistically competitive markets could be that these cost curves are inflated over the costs of that perfectly competitive firms would face.

So, if there some variable costs of advertising, maybe perfectly competitive cost curves would be strictly lower than this marginal cost and average total cost curves.

So these are the three differences between perfectly competitive and monopolistically competitive industries.

We could say that because of excess capacity, deadweight losses result in the market.

We might call this the allocative inefficiency from monopolistic competition because some units of output that should be produced that would be efficient to produce are not being produced in this industry.

We can also say there could be technical or cost inefficiencies because monopolistically competitive firms might face higher costs than perfectly competitive firms.

[15:17]

We can summarize that monopolistic competition doesn't have all the nice properties of perfectly competitive markets.

We get the same kind of deadweight loss that we get with any market power.

So, just like in monopolistic and oligopolistic markets we discussed, deadweight losses we get the same inefficiency in monopolistic competition.

We can say that the number of companies in the market might not be optimal.

A social planner thinking of all the effects of entry of new firms might choose a different number of companies in the market.

That comes from the different externalities that companies in monopolistic competition face when they enter the market.

We can say that there is a positive externality from entering the monopolistically competitive market.

Because each time a new company enters the market, the product variety in the market increases, so consumers benefit.

We can think that each time a new company enters, consumers' surplus could increase.

Thinking about... I started with an example of very spicy versus non spicy food.

You should think that each time a new restaurant opens, consumers don't have to travel very far.

They don't have to eat very different food from what they prefer.

Thinking about the geographic interpretation of the line between Ehwa and Sinchon, consumers don't have to travel very far geographically to get to their favorite restaurant.

But the entrant into the industry has limited ability to capture this new surplus.

So, because of product-variety externality, maybe we would think that there would be too little entry into the industry.

On the other hand, there is also a business-stealing externality.

One effect of entering the market is to simply redistribute consumers from existing companies to the new company.

Because the entrant only cares about its own profit rather than profits of the entire industry, companies might choose to enter the market, if their own profit increases even though that decreases profits of other companies in the market.

[18:08]

Finally, if there are some set-up costs in the market, companies only choose... only care about their own costs of entering the market rather than about the set-up costs of their competitors.

So, because of these two and possibly even the third, a fact of entry, we might have too little or too much entry into monopolistically competitive markets.

The final point of discussion here is that in monopolistically competitive firms, companies find it optimal to advertise their product.

The reason is that prices are strictly above marginal cost of production.

So companies want to increase their market share, they want to increase their output level.

And in order to do so, they might want to either increase the size of the aggregate market or maybe even steal customers from their competitors.

There is a big debate whether advertising is beneficial.

Critics of advertising say that advertising serves to manipulate people's tastes.

Advertising is supposed to make consumers perceive differences between products that don't really exist.

Advertising costs might increase consumers' prices.

Advertising might even limit the amount of effective competition in the market place.

If companies advertise their prices, they might be committing themselves not too lower prices in the future and that could have anti-competitive consequences.

On the other hand, in the real world, if there is uncertainty in the market place, advertising can give consumers additional information on prices, quality of products, availability of other varieties.

Advertising could increase competition by making other options available to consumers.

And in the presents of uncertainty, advertising could serve as a signal from companies that their product is a superior quality that the company is in the market for the long run and the company is planning to make repeat purchases in the future.

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So, the true quality of the product can be revealed to consumers through advertising.

Now, we have studied the supply side of different industries.

We stared with perfectly competitive industry going to the extreme opposite of a monopolistic industry.

Then we looked at two intermediate cases of oligopoly and monopolistic competition.

And we are almost done discussing micro-economic topics in this semester.

We will cover one more chapter on micro-economics dealing with input markets.

And after that we will delve into macro-economic topics discussing aggregate output levels, aggregate prices, productivity of inputs used in different economies in the world.