Economics of Health and Healthcare
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Lecture – 22
Market Structures and Perfect Competition

Hello everyone. In this session, we will understand about market structure, different kinds of market structures and what kind of market we generally see in the case of health care. So why we will require to learn this market structure? Because whenever we talk about market, it starts with demand and supply and it talks about price and then the quantity supplied or quantity demanded. So this is the market structure and depending upon the price and the supply and then the demand, the production based upon the cost structure takes place.

Therefore, the market determines the scenario of health care. Be it from the demand side that is the health seeking behaviour or the health status or be it from the supply side that is the health services. Therefore, it is very important to learn the, to gain the knowledge about different types of market structure when we are studying health systems.

While studying health systems since our first discussion, maybe we have learnt that health is a kind of market which is accumulated based on several fragmented markets. Like there is enormous amount of heterogeneity from productive product, from places to places, from community to community, from different diseases to across different diseases. So both the demand and supply framework has been very different.

Therefore, this is to understand the market mechanism of health systems as well as for the policy makers, it is important that we have proper idea, proper knowledge about what happens behind the screen of this health systems in terms of the market when we talk about the competitions across hospitals, when we talk about the competitions across or among the doctors, when we talk about the shortage of a particular vaccine, when we talk about whether there is oversupply of a particular specialist, dentist also.

And then based on that the entire pricing or the hospital fee, the diagnostic charges, everything is determined with a particular market, the pharmaceutical market, is opened to the international economy. So it is very dynamic in nature. So one must have a solid understanding about different market structure for different health care products or health care outcomes. So a market structure basically is determined or dependent upon several characteristics.

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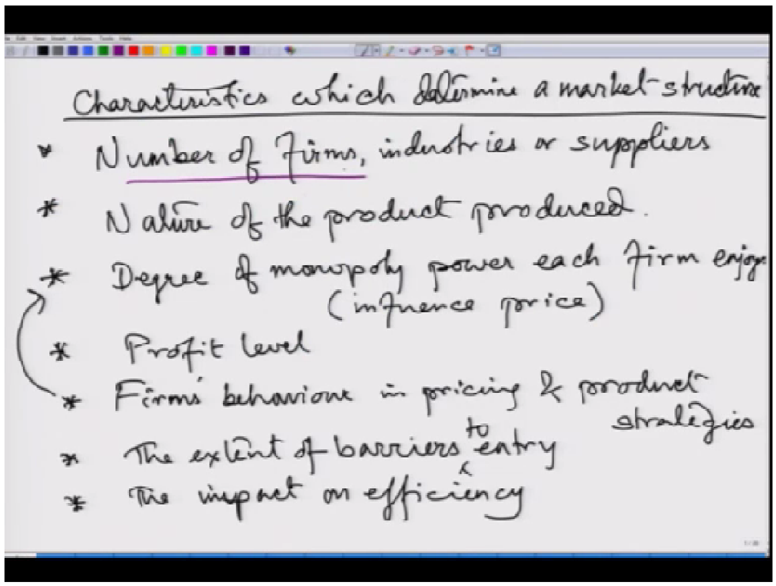

So the characteristics which determine a market structure, not a market, a market structure, if it starts with the number of firms, industries, or suppliers is depending upon how many industries, how many firms, how many suppliers, how many health care providers are there that is the one important characteristics which determine my market structure that what kind of market it is not sold because we have plenty of things to come.

The next one is the nature of the product produced. What kind of product? How, whether it is very expansive, very complicated. Whether it deals with several other products or by-products. So in terms of health care, whether it requires services of several other paramedic entities. So this product, the nature of the product is also very important to determine the market structure or the characteristics of a particular market.

The next is the degree of monopoly power a firm enjoys. This degree of monopoly power means that they have a strong control over the market. They can differentiate price. They are the price maker, so they can determine the price. They can differentiate across the products. They can fragment the market. So the monopoly is actually the control the firm has over a particular market and that completely explains that what will be the decision making authority of a particular firm or a group of firms in a particular market.

There can be just 1 firm, there can be multiple firms and there can be only a few firms and the monopoly power of each firm out of that or maybe 1 firm out of that or a group of firm out of all these firms will determine that how this market will work and how the price mechanism, how the demand and supply will be made, how the price will be set. The next is profit levels. So whenever we are talking about this degree of monopoly power, we will say the power to influence price.

Because price gives them the revenue. So this is very very important how they influence the price or what is the influencing power they enjoy. The next one is the profit level they want to keep. Whether they are ready to earn a normal profit level that is no profit, no loss or kind of when we they perform in a breakeven point where the cost total, cost and the revenue are equal. So there is no profit or they want to make some positive profit.

So the profit level and what is their aspiration, what is their target, will determine that how, what kind of market we are talking about. The next can be firm's behaviour in pricing strategies or the non-price competition or the output levels. Firms behaviour, pricing and product strategies. It also includes the output level, whether they are differentiating market. So it can also be associated with the monopoly power they enjoy, you know, partially of course, yes.

And the extent, there is a barrier to entry of that if a firm wants to enter a particular industry, they may not be entertained or they may not get the entry. So how far there is a chance that a new firm can join a particular industry. Whether there is a barrier, whether there is no barrier, they can just open a, just register their firms and start operating or there is no way even if they try to start operating but they will get any business because the market is influenced by other players.

So even if I try to do it, there is no way that I can make a move forward. So the extent of barriers to entry and then the impact on efficiency. That how efficiently that market is or the industry together, a number of firms. So how efficiently they are producing the product. So the market is perfect, we will learn shortly that what is the perfect market. So if a market is perfect, we say that there is an efficiency, there is an equity in distribution and all this at the lowest or no wastage of resources.

So this mood the market gets imperfect, market imperfection arises, the more the market moves towards more of inefficiency or the higher price and then the output is never justified by the price or the cost is kept lower and then to getting a high level of profit, they have kept the price. So which is not an efficient way or efficient economy.

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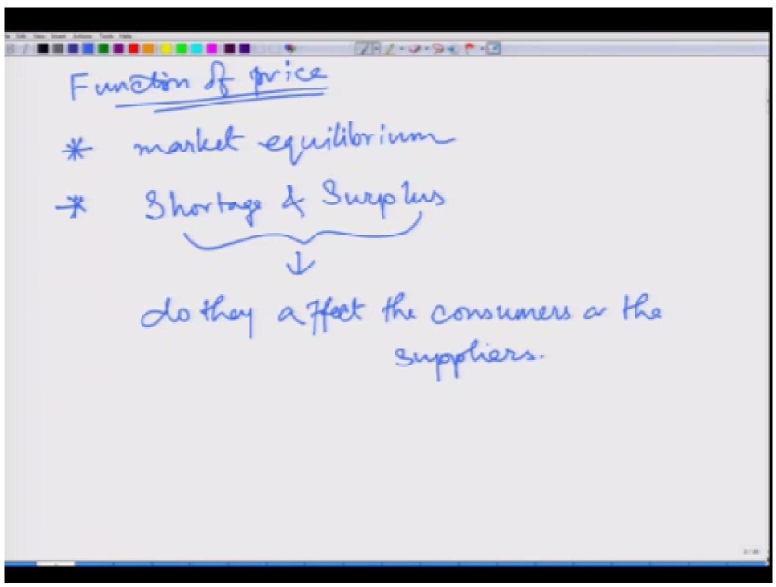

So the function of price is number 1. What it does? It brings the market in equilibrium so that whenever there is a shortage or surplus, what the firm, the price does, it helps the supplier and then the consumer to engage in a bargaining and that is where if there is a shortage, the price will go up and if there is a surplus where the supply is more than the demand, the price will go down because the supplier have to sell their products.

So the price actually attains, it is flexible and it helps the market to attain an equilibrium price where the supplier gets good price and they can sell what they deserve to, where the consumers get what they require or what they wish to get at a particular given price. So that helps us to attain a market equilibrium. The second one is as a good becomes scarce, the price goes up and as the good in case of a shortage and surplus and as a good becomes abundant then the prices will come down.

Shortage and surplus but do they affect the consumers or a market as a whole, affect the consumers or the suppliers or here health care providers or firms. Yes, how do these affect? If the supplier wants to make a profit, positive profit, not a normal profit, if they want to make a profit, then whether if the price comes down at following a natural behaviour to bring in an equilibrium, whether that satisfies the supplier or whether it really satisfies the consumer because maybe the consumers were wanting more but they cannot afford any price more than that.

But they did not get the level of output or the level of health or the service they actually wanted to have or they have to have. And that is very, again very uncertain because it varies from market to market, it varies from country to country, it varies from socioeconomic group, across the socioeconomic group. So the major market structures what we generally find are 4 in nature.

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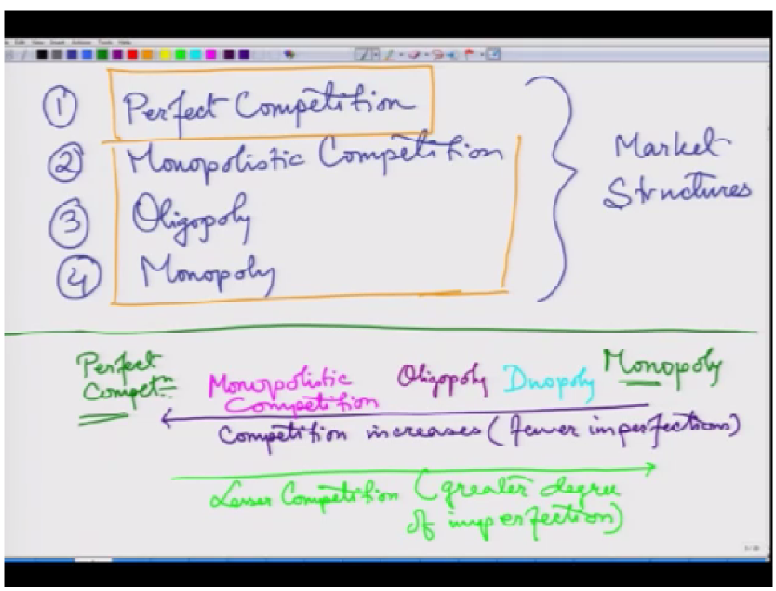

So the first being perfect competition. The second monopolistic competition. Third, oligopoly. And fourth, monopoly. So these are the basic 4 market structures. Only this perfect competition can be known as a perfect market where as these all 3 can be clubbed as market imperfection. So what happens is if I try to plot them in a simpler way, so if I keep here perfect competition, one extreme.

Another extreme is of course monopoly. We will learn more about why of course monopoly. So what happens one over here competition increases towards this side and fewer imperfections where from this side to this side, we have less competition and greater degree of imperfection. Yes, so and in between, there will be first monopolistic competition and second, there will be oligopoly and if you can, then the third will be duopoly.

Now perfect competition is generally where there is perfect competition across a lot of firms. It is a lot of producers, lot of sellers and lot of suppliers, they are almost infinity. Whereas in case of monopoly, just a simple, this is fast fundamental difference, the monopoly, mono is 1 and monopoly is when there is only 1 firm. Here multiple firms and T number of firms. Here only 1 firm, monopoly.

Duo is 2, 2 firms. So you can see from perfect competition where the infinite number of firms to slowly 1 firm. Slowly the competition is decreasing. And it works like this. So whenever we are going towards the right from perfect competition to monopoly, we have from more competition to less competition and when competition is higher, of course, we will try to have, bring more efficiency in my product, the quality will be better.

Whereas in monopoly, I enjoy the market. Everything is mine. So the degree of monopoly power slowly so that the control over the market maybe because of that if there is any inefficiency, then inefficiency. So everything increases when I move, or decreases sorry. When everything decreases, the control over the market increases.

And then the level of inefficiency probably or most likely is that it decreases from perfect competition towards monopoly slowly from each, across each of this from perfect to monopolistic, monopolistic oligopoly, oligopoly to duopoly, duopoly to monopoly, it is like that. So what are the importance, to understand that what are the different market structures?

The first thing is that consumers have an idea about why they are being charged differently and what is the level of competition and whether there is at all any competition and whether that competition really determines the price we are paying for our providers towards our provider because health is a right and health care market is a mix of public and private markets. And we really it is very very difficult to understand that whether a particular market really have a, it is possible, whether is it possible or not that to have a perfectly competitive market where efficiency is ensured.

We will shortly learn about that. We will slowly learn about that that whether in health care market, which kind of market is this but before that we will try to learn about different kind of market in a broader way. And of course this particular market structures have a direct implication on the quality of services or the performance the firms provide to us.

And when we are talking about this, not only quantity or the accessibility or the affordability, we also talk about the quality of the health care services and then if the market is not perfect and if that has a serious implication, adverse impact on the performance of those particular health care providers, then we need to think about that. Because the health is being kept at stake and the government certainly needs to do anything or if possible, if the market is not a completely monopoly, then if possible, the patients, the consumers will shift to other possible options.

And if yes, yes but if there may not be options, they may not have information. So the characteristics of each model are again if like say it will determine about the number and size of the firms, the control over the price, the control over the output, whether they will do advertisements or not, how will they ally all their patients and then the kind of product they are producing.

Whether under the same banner, they keep it heterogeneous or they will keep homogeneous or every organization has a niche product or something like that. And all these will determine that what is the market structure. In case of perfect competition, the first point while I discuss about the characteristics of a perfectly competitive market, then the first point is of course is one extreme market structure.

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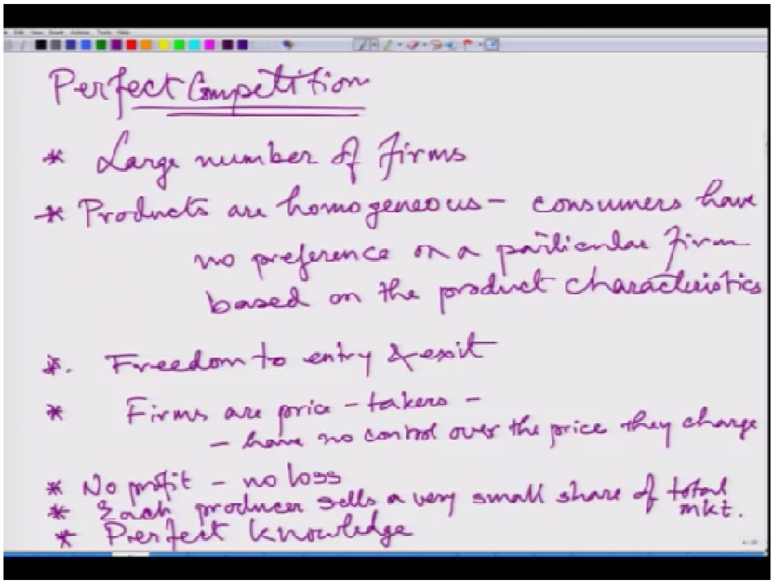

The first point is if you remember we started with the number of firms, yes. So over here also, we will say, large number of firms. Yes, and the second point is products are homogeneous, that is same. Every single firm produces absolutely similar kind of product. And consumers have no preference based on the products or I will say no preference on a particular firm based on the product characteristics.

Because all the products are absolutely similar. The third is, there is a full freedom of entry and exit. Anybody can enter the market, start the business. Anybody can exit if they wish to exit. It is completely free market, anybody can. If I want to setup a clinic, I can setup a clinic, yes. And if I and I have to, of course, give the same kind of product and if I want to leave, I can just close the shop, that is all, stop my consultancy business.

So there is an absolute freedom towards the entry and exit. And each producer, before that, firms are price takers. They have no control over the price they charge. Just for an example, if a particular firm, say if a particular doctor increases his consultancy fee. So everybody will stop going to him. He loses his entire business because there are 99 more doctors who provide the same treatment at a lower cost, why will I go to him?

So he loses business, so he will bring down his price, number 1. Number 2, if a doctor decreases his price, now all the patients will come to that doctor, yes. And everyone is and 99 will find a significant loss in the business. If not, they do not get any business because one doctor cannot accommodate all 100 doctor's patients. So they will have a significant loss in the business. So what they will do to gain back their customers?

They will also decrease the price. But in that way, probably the price will continue to decrease. No, it does not happen like that. Because the suppliers, the providers, they have to survive, they have to be in the market, they cannot lose because in a perfectly competitive market, there is no profit, no loss, normal profit. So what happens? If in this condition, they are decreasing the price, then they make losses.

So slowly everybody will increase the price because otherwise, if some firm, they continue keeping a lower price, they may fall back. Because they will continuously lose even if they have a higher number. Here we are not discussing about economies of skill. Correct, so they may lose such a number of or continuously considerable amount of loss which they will not able to make up and then they will slowly move out of the market.

And each producer sells a very small share of the market, sells a very small share of total market or the industry. Yes, because there are so many, so many producers. So they like one particular producer is actually or one particular seller or one particular proprietor is actually selling or supplying a very small proportion. And then the last one is consumers and producers have perfect knowledge.

Both the consumer and the producer has perfect knowledge. Consumer has perfect knowledge about the producer, the quality of the product, the price of the product, how many producers are there, where they are, everything. Similarly, the producer has a perfect knowledge that how much the consumers are willing to pay, what is the number of consumer I can get. If I lower my price, how much I am going to get and how much I am going to lose.

If I increase my price, what will happen, what others are charging. So they have every single information about the market. So that is the perfect knowledge about the market.

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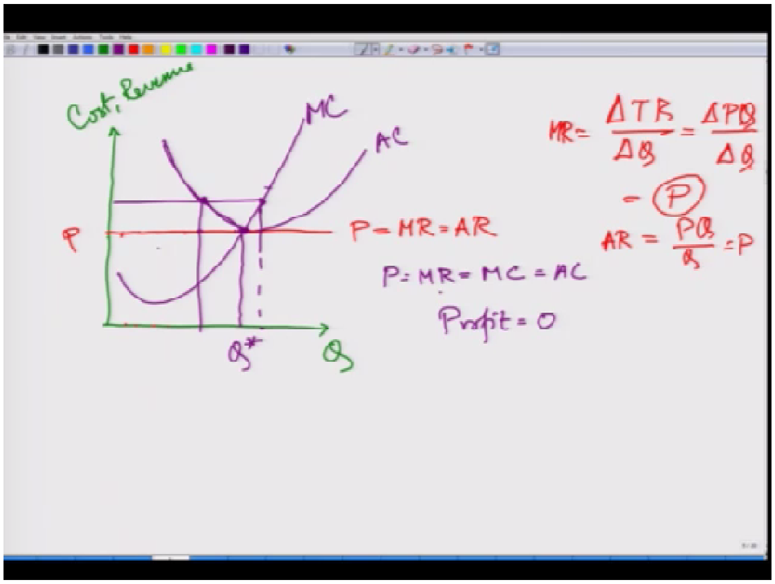

So in case of this perfect competition, if we diagrammatically want to represent that, then over here, quantity output or the sales and over here cost and revenue, you can keep marginal cost, marginal revenue, total revenue and total cost and then this is my revenue curve. This is because this is my P, yes, my price of the product. It does not change because everybody is a price taker, not a price maker.

Whatever the market is determining, that is the price and everybody has the same price. Best example can be in a perfect location, there are around 20 chaiwalas, yes, tea vendors. So if there are 20 tea vendors, nobody will keep their price little high or little low and probably the quality is also similar. They may not be similar, mostly they are not. Yes, generally they are not. So it is an extreme case but still.

So the price generally you find them to be similar. Even in the train you see the several vendors are coming up but prices are same. And then the product has no differentiation. That is what we expect and we do not have still like and we do not really make a preference that I will get from him or I will get from the other person because I think that everybody produces the same quality of tea.

So similarly over here, price=marginal revenue and the average revenue, why marginal revenue.

Marginal revenue if you remember change in total revenue/change in quantity, yes. Change in total revenue, what is total revenue? Price and quantity. Price is constant, right. So divided by del Q, so price is constant, so it remains out and gets cancelled. So your price remains same because for every single output, your price remains same.

And when you are multiplying your total product, this*this, this*this, this*this, total revenue, yes. So this is how even the average revenue is just priced because average revenue is nothing but total revenue PQ/Q which is nothing but the price. So it is a straight line. It remains constant. At the same time, we will when we estimated the marginal cost and the average cost, if you remember, then marginal cost is something like that and from where this marginal cost curve passes?

Through the bottom most point of average cost curve. Is not it? Through the minimum point of average cost curve. Yes, so here is the minimum point and here you will find an intersection of the price, the marginal cost and then the average cost, yes. And this is my optimal output in a perfectly competitive market where my P=MR=marginal cost. You remember that when we make the maximum profit or the maximum loss, (()) (30:20) basically the difference between total revenue and total cost is maximum.

But the marginal revenue and marginal cost, the slopes, they were same. So over here also we are trying to find kind of similar condition where my marginal revenue and marginal cost is same and if they are same, then you can see marginal revenue and marginal cost being same and average cost also in the same point. So I do not make any profit. So my profit is 0, yes.

So this is what happens in a perfectly competitive market and anybody, they want to keep the price higher, so naturally it does not persist because over here, if they keep the price higher, it will come down because people have information about the price and nobody else increase the price.

So they will lose the market. But it is possible. Because if they charge the price higher, then, so they can produce more but finally, they will be over here. So they will lose something. They will lose their product. So even if, over here, they will intent to produce but it will be over here. So their average cost is more than the profit, the price and then they make a loss finally. Thank you.