Managerial Economics
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Lecture - 53
Monopoly

So, we will continue our discussion on theory of perfect competition. So, if you remember in the last class; we discussed about the long run price and output decision. Then we talked about that when there is a imposition of tax generally who takes the maximum of load; whether it is the buyers or whether it is the sellers? And then, we examined the case of stock market, whether this is part of perfect competitive market structure or not.

Then we will take one more example today in order to understand that whether there is a application of competitive market in the real world or whether there is a evidence of perfect competitive market form of perfect competitive market structure in the real world.

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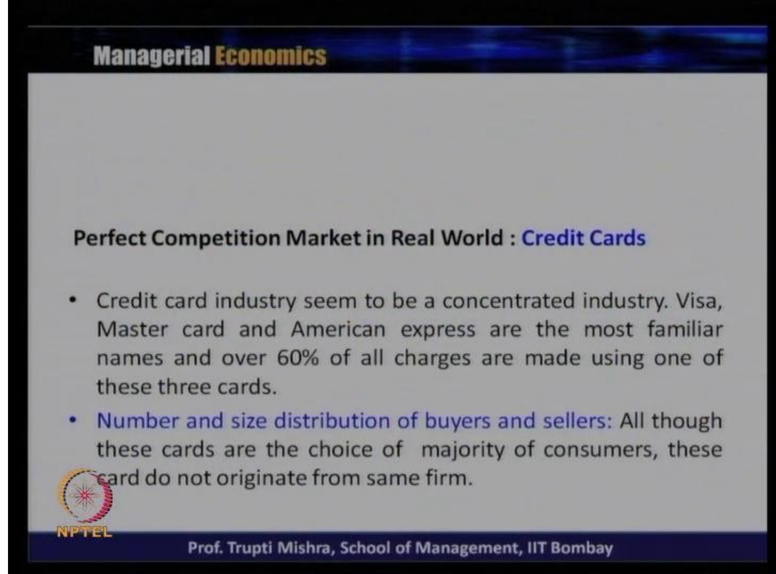

So, generally we will take the example of the credit card industry. And if we will see credit card industry seems to be a concentrated industry. Visa master card and American express are the most familiar names and over 60 percent of all charges made using one of this three card.

So, if you look at, if you are holding a credit card either it is a visa card either it is a master card or it is a American express card. So, maybe they originate from different financial institution or different banks. When it comes to type of cards either its American express master or visa card. And if you look at 60 percent of all charges are made using one of this

three cards. So, when it comes to the characteristic of perfect competitive market structure and this credit card industry; the number and size distribution of buyers and seller is somehow comes to a equal characteristic, because there are large number of buyers. If you look at people, they prefer to use more credit card rather than debit card or operating in cash.

And there are number of sellers like if you take any banks specifically whether it is a small in size. But still, they offer a credit card at least to those people those who are holding a account in their bank. So, there are large number of credit card service provider and also there are large number of users of the credit card which has some similarity with the characteristic of a perfect competitive market structure that there are large number of buyers and large number of sellers. Then although this card are the choice of the majority of consumer; this card do not originate from the same firm. So, number of firms. But if you look at the product, the credit card is the product which comes from the number of firms. But if you look at its identical product because it is a credit card.

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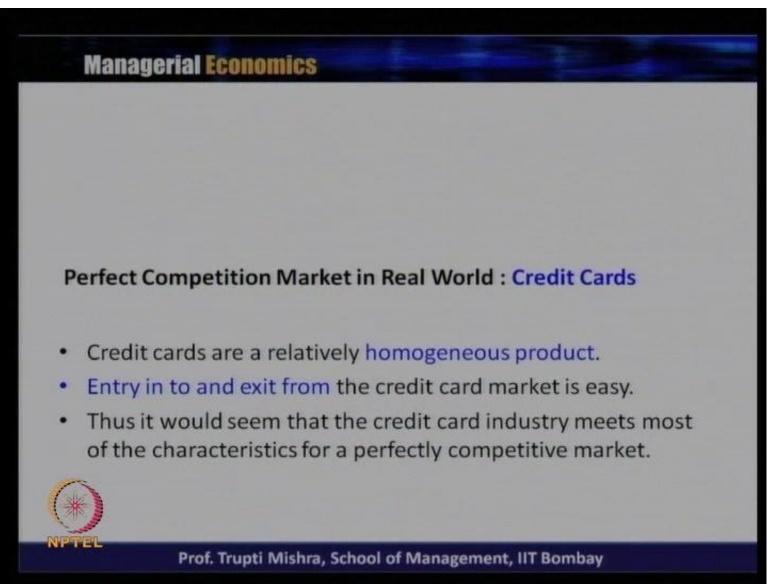

Similarly, if you look at its relatively homogenous product because the utility of the product is remain same whether it comes from HDFC bank, whether it comes from ICICI, whether it comes from SBI, whether it comes from any other banks. The usefulness or the utility of the product is the homogenous product. So, credit cards are relatively homogenous product even if it originate from the different firms still it has the same utility or the same usefulness and that is why it is a relatively homogenous product.

Entry into and exit from the credit card market is easy like if you have a repaying capacity generally you get a credit card. So, there is also entry into it and exit from the credit card is

also like you can just get out of it after paying all this due. This is from the consumer perspective and from the firm perspective also there is no hard and fast rule that whether you should offer a credit card or not. If you the bank has the capacity to offer a credit card generally the firm or the bank they offer it or otherwise they generally exit if they are not feel that it is not a profitable business for the firm.

So, it would seem that the credit card industry meet most of the characteristic of a perfectly competitive for market at least when it comes to large number of buyers and sellers. When it comes to homogenous product, the number of buyers and seller in the product they are large. It is a homogenous product because the usefulness of the product is remain same whether it comes from the whether it comes from the bank x or firm x or firm y or when it comes to the entry restriction. There is no entry barrier, there is no entry restriction, there is free entry into, free exit into the firm.

Now, the question comes is there any imperfection who here incase of the credit card industry? May be the when you talk about the imperfection yes, because when you analyze it it is not the same product because is we get different category. There is a product differentiation because what facility we get it in the master card that we do not get in the visa card. And that we do not get in the American express card. And otherwise also if you take it in a different angle what facility we get it in the we get it in the American express card or a visa card we do not get in the master card.

Similarly, when you talk about that homogenous product again the homogenous product may be different because if you look at the cap like the. What is the credit card limit may be for one card limit is forty, if it is a gold card, if it is a platinum card or if it is a again there are different scheme credit card. Different schemes are coming and in that case you get different cards into the different cards and different credit limit. And also the different phases sometimes we get the cash back offer. And so if you analyze the product in that angle again that again the question comes whether it is a homogenous product. May be that time the answer is no. Similarly, free entry and free exit may be also a relative concept. And if you analyze it may be again it is not fit be a perfect competitive market structure. So, may be out of this out layers again when it comes to a comparison between the credit card industry and whether it is a perfect competitive market structure. May be closely the answer is yes because at least there are few features which gets there is a resemblance with the perfect competitive market structure.

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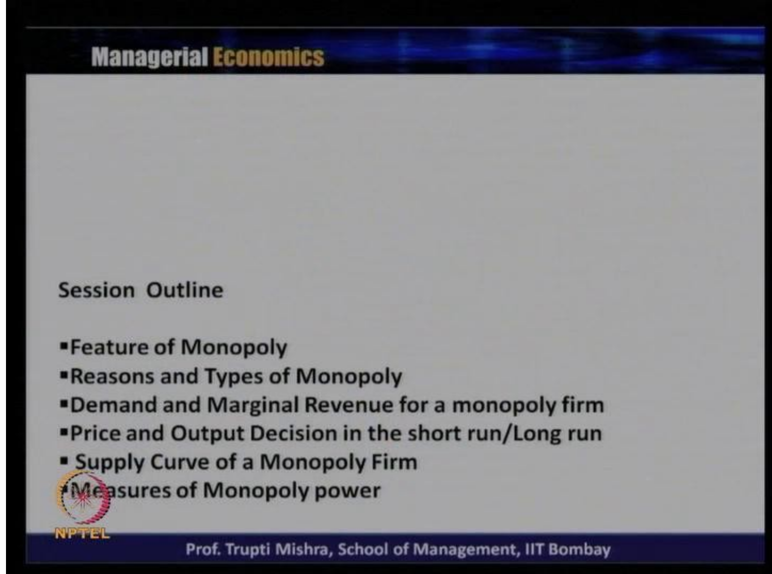

So, then we will take our discussion into the next form of market structure that is the monopoly. So, in one extreme we have perfect competitive market structure and the other extreme we have the monopoly. So, in today's session we will talk about the features of monopoly. So, if you look at perfect competitive is the one form where there is no competition at all. There are large numbers of firms and in the other end we have the monopoly, where there is a single firm there is no close substitute product.

So, two extremes. So, we have already discussed about the perfect competitive market structure. Then we discussed about the monopoly and we will do a comparative assessment between the perfect competitive market structure and the monopoly market structure. So, in today's session we will talk about the features of monopoly. We will find out what are the reasons for monopoly. Generally, why the market immerge in the form of the monopoly? Then we will look at what are the different types of monopoly. We will check the demand and marginal revenue for a monopoly. How it is generally derived? Then we will talk about the price and output decision in the short run and long run and then we will talk about the supply curve of the monopoly firm and how the generally the measurement of the monopoly power is done.

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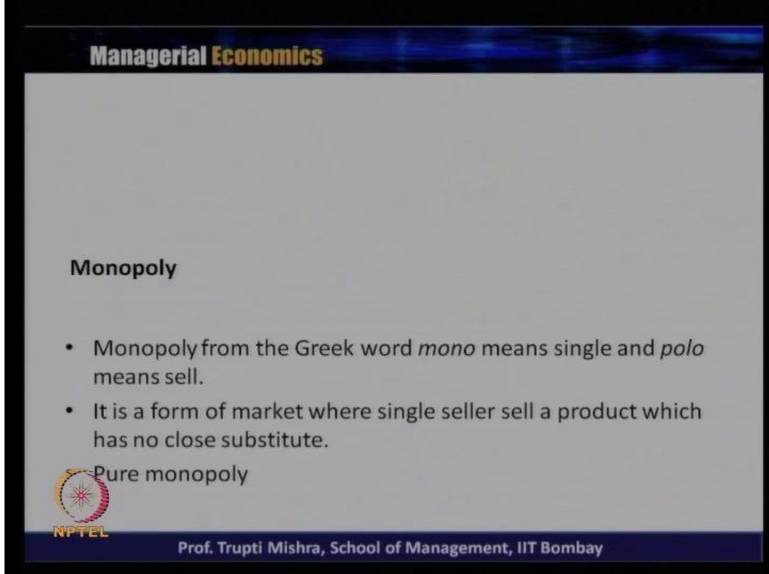

So, the word monopoly comes from a Greek word mono that is single and polo that is sell. So, it is a form of market where the single seller sells a product which has no close substitute. So, we can do a quick mind game over here that when we think about a product. Immediately we need to find a substitute. So, whether we talk about a toothpaste; it is a tooth powder. When you talk about a soap, it is a liquid soap. When you talk about a particular wend shirt and it is another shirt.

So, if you look at if you closely look at there are some form of substitute is not there may be some time it is close substitute, sometimes it is the distant substitute like. If you look the case of railway may be there is no close substitute. The railway, but there are some distant substitute like when you the take the mode of travel as air, take the mode of travel by road, they there are substitute available. Railway is not the only products available in the market. So, that is the reason when at least for a product we get close substitute or distant substitute, we cannot call it monopoly. It is not a pure monopoly because still some close or the distant substitute available.

Similarly, when you talk about monopoly and we are always saying that the extreme form of a market structure; can we get the evidence of pure monopoly in the monopoly? In the real world may be the answer is again no. Either it is a monopoly because of regulation, either it is a monopoly because of the natural factors or maybe it is a economic monopoly. But again you take a specific example; suppose it is rock, suppose it is salt. So, for the time being when you do when you think over it may be there is no close substitute to salt because this is the

only product. And if you want to use salt that is the only form of product there is no close substitute.

But you think it over again, it is not salt there is also a substitute that is called rock salt right. So, may be the product there are few products in the market if you look at that is the only product in the market, but still it has some substitute. So, we cannot say there is one product which has no substitute and that is the reason we can say that there is no pure monopoly. At least in case of a real market real world situation or the market situation because it is pure monopoly is one where there is no close or no distance substitute should be available in the market. And that is quite hard to find in the real world example. And that is why we say that may be the monopoly comes in the form of regulated. The monopoly comes in the form of the natural factor, but not as a pure monopoly. And that we will discuss in due of time. That what are the different kind of monopoly and how they form. Or how they immerge themselves as a monopoly market in the market, in the real world situation?

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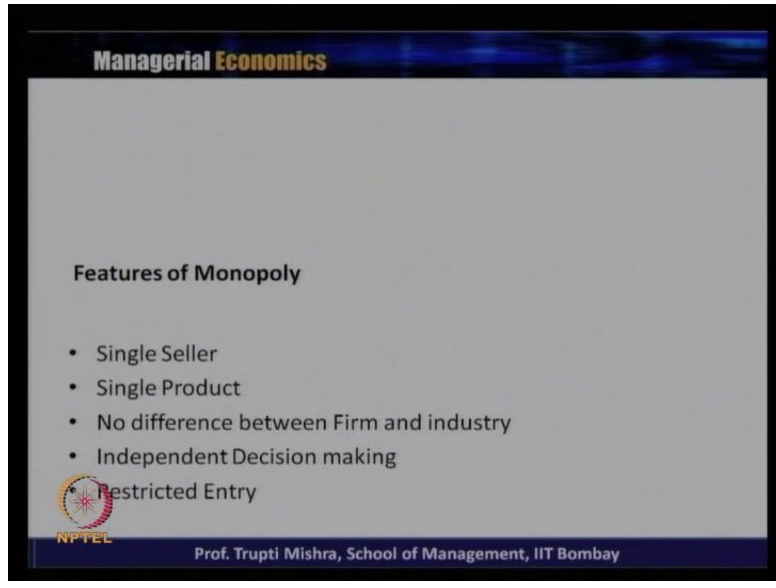

So, when you look at the features of monopoly there are single seller single product, there is no difference between the firm and the industry because it is the single product and the firm produces all the individual firms or the numbers of plants. They produces all the product. So, it is not number of firms, it the industry. There is no difference within the firm and industry because there is a single seller who sells the produce or sells the entire product that is required in the market.

Independent decision making because there is no competitor. So, the existing firm has not has to take care of the, what will be the competitor reaction when it comes to regarding the

decision about the price and output. So, in this case there is a independent decision making and also one of the significant feature of the monopoly market structure; it is a restricted entry. And why we call it a restricted entry? Because there is a entry barrier. May be sometime this is manmade otherwise it's natural also. There is a entry barrier whenever a firm interested to produce a product. It is not that its free, it is not that they can just entry into the market and they can produce and they can sell it the market.

So, that is the reason this form of market is more different from the other form of market because at least there is no entry barrier in case of the other market. But in this case specifically there is a entry. There is entry barrier. Then we can analyze that whether it comes natural or whether it comes as a whether it comes there is a reason behind this monopoly.

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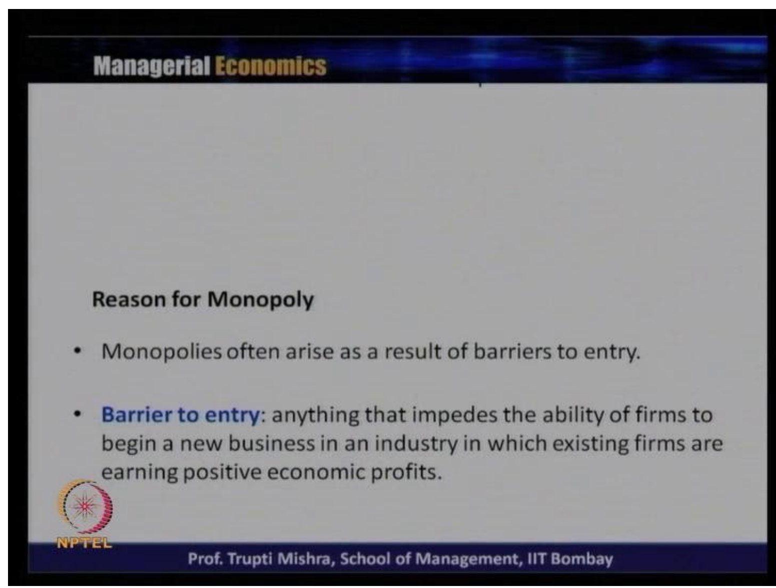

So, the main cause or the main reason that monopoly generally arises from the barrier to entry and there a entry barrier and that leads the market into the monopoly market. Now, what are the entry barriers over here? The barrier to entry before getting into the what are the different kind of entry barrier we can say? What is barrier to entry or how generally we define the barrier to entry? Anything that impeds the ability of the firm to begin a new business in an industry in which the in which existing firm of earning positive economic profit.

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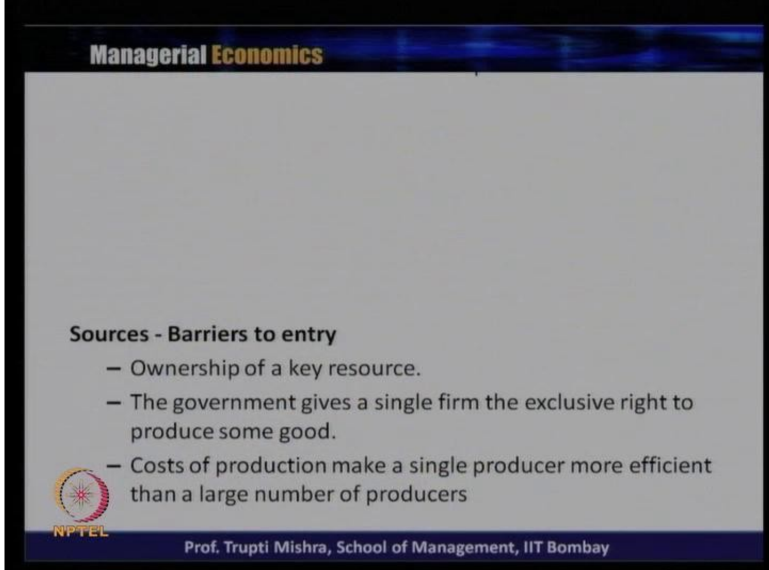

So, it is kind of situation any factor which stops the new firms or the which stops the firms to get into that business is generally the generally known as the entry barrier because that that generally create a barrier for the new firms to enter into the market where the existing firm they are getting the economic profit. They are or they are getting the normal profit. They are getting the super normal profit.

Then, we will see where the, where what is the source for this barrier to entry barrier to entry is any factor which stop the entry of new firm into the industry or start a new business into the industry. So, what would be the sources of the barrier of entry or generally from where this entry barrier comes? First, When the firm they have a ownership of a key resources. Generally, they that stop the other firms to enter into the market because they have the ownership of key resources. And that is the reason they have also ownership to produce the product in a more cost effective manner.

Any new firm enter into the market they have to get the resources which may be more costly as compared to the cost of production of the other firms which which having the ownership of the key resources. Second, the government, when the government gives a single firm the exclusive right to produce some goods, like if you look at everybody cannot produce the equipment required for defence; the government gives the single firm the exclusive right to produce some goods. So, here it is a regulation that creates a entry barrier for the other firms

to enter into the market. Third third sources of source of barrier to entry is the cost of production make a single producer more efficient than a large number of producer.

So, cost of production. So, if you remember incase of cost analysis we discussed about the economies of scale. So, there are different stage when the firm operation, expanding the scale of operation at a lower cost of production, firm expanding the scale of operation at a cost and cost of production and firm expanding the scale of operation in a increasing cost of production.

So, in this case if the existing firm they are operating the scale expanding the scale of operation at a lower cost of production. They get the cost advantage and they get the enjoy the economies of scale which may not be possible for the new firms to enter at that stage in case of the market because the existing firm. They are producing the product at a lower cost of production any new firms. They enter into the market, they have to any new firms enter into the market. Generally they have to compete with the existing firm at a higher cost of production and which may not be profitable for them and that stops them to enter into the market because the cost of production make the single producer more efficient than the large number of producer.

So, generally barrier to entry comes from three sources; one when the firm has the ownership of key resources used for the production. Second the government gives the single firm the exclusive right to produce something. And third the cost of production make the single producer more cost effective than the large number of producers in the market.

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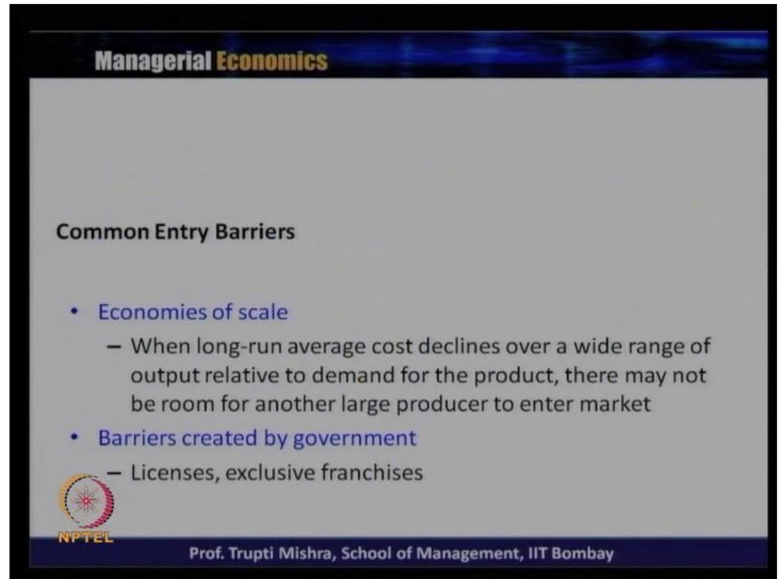

Then, we will see what are the types of barrier or what are the common entry barriers. The first one is economies of scale. So, when the long run average cost declines over a wide range of output relative to the demand for the product; there may not be room for another large producer to enter the market. Like in the previous case, we are examining that when one large firm is producing at a lower cost of production; there is no scope for the other firms to enter into, enter into the market producing at a higher cost of production and competing with the existing firm.

Since the existing firm is enjoying the economies of scale, they are producing the product in a most cost effective manner and that reduces the scope of the other firms to enter into the market. So, when the long run average cost declines over a wide range of output relative to demand for the product. There may be, there may not be room for the another large producer to enter the market and this serve as a one kind of entry barrier battery.

Then barriers created by the government license exclusive franchises if it is given by government. Then that creates as a entry barrier like we are taking, the we are talking about the example of the supplier of the defence equipment. Everybody cannot get into the market. It should be through the government when they are giving a exclusive franchising, when they are giving a license to do that then only they can get into this and this serve as a entry barrier for the other firms into the market and they immerge as a monopoly leader.

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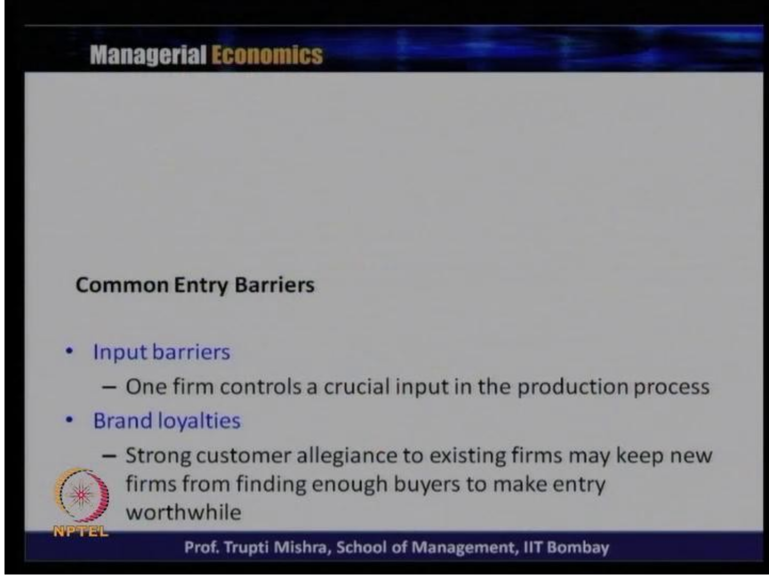
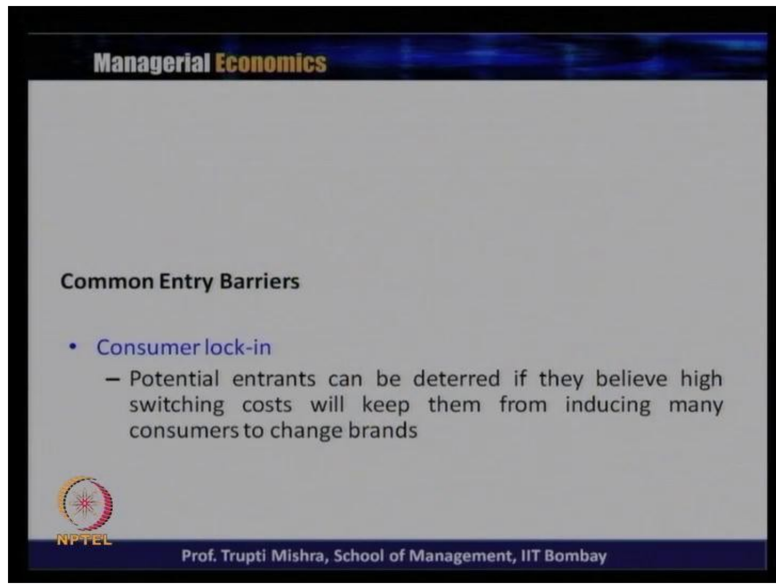


Then we have input barrier. That is one firm control the crucial input in the production process like if someone is having the key ownership of the resources whether it is a technical logo like you can take the example of IBM who specializes in the mainframes. So, any firms

they enter into this may be they are not the specialized because the IBM they are holding a crucial input in the production process or the mainframe. And that serve as the input barriers for the other firms to enter into the market.

Then brand loyalty strong customer allegiance to existing firm may keep new firm from finding enough buyers to make entry worthwhile. Like you can take the example of Johnson and Johnson; its like for the baby product if you look at they are the market leader because till the time people they have the brand loyalty, there are many more brand it has come in the market in the recent time. But if you look at people they have still the brand loyalty for the people and that makes them the that makes them actually the firm to become monopolist and brand loyalty serve as a in entry barrier like Microsoft when it comes to the window. When it comes to the any other Microsoft process we always say that Microsoft is the market leader.

So, the brand loyalty for the Microsoft generally takes the other firm out of this market and that is why it serve as a entry barrier because people they have a confidence on the brand. They have the loyalty for the brand and which acts as a barrier to the other firms to enter in to the market. (Refer Slide Time: 19:53)



Then we have something to called consumer lock in. And what is this consumer lock in? When the potential entrant can be deterred if they believe high switching cost will keep them for inducing for many consumer to change the brands like some times the switching cost from one brand to another brand puts the consumer into the lock in situation. And that leads to that leads to the situation where the other firm, they they cannot enter into the market.

Like, you can take the example of a mobile service provider. When you have one connection from one mobile service provider you do not change that easily because it again use a again leads again requires a switching cost or the high switching cost because it may be high. But there is some amount of the switching cost may be in case of mobile service provider at least when you need to buy a sum, when you need to put a recharge card and which is is which generally consider as a part of the switching cost.

So, generally when people they move from one product to other product; they look at what is the switching cost available with this. So, if the switching cost is high generally people they take this to a, they takes as the if the switching cost is high and let me not get into the change into the other product I am with this product. So, this thought process itself because the consumer is not changing the brand because there is a high switching cost that leads to the other entry barrier for the firm into the other firms into the market.

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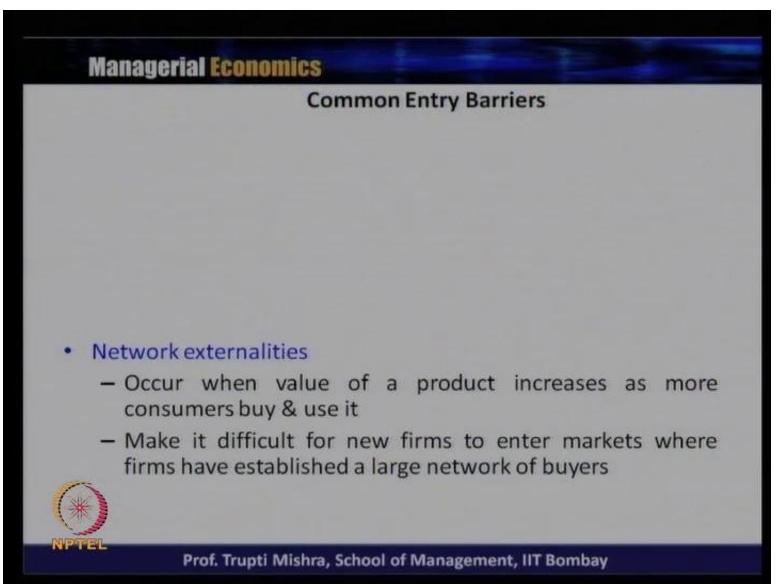

Similarly, we have network externality which serves as a entry barrier. It occurs when the value of a product increases as more consumer buy and use it and make it difficult for new firms to enter the market where the firms of establish a large network of buyers. So, when we are moving to a new place you can take the example of a. We can take the example of a maybe it’s a phone connection or its can its can be a buying a laptop, buying a computer. Generally how do you take a call that which one to buy? You say that which product is more common in this area whether it if it is a mobile service provider, whether it is BSNL, whether Vodafone, whether it is Airtel. And if it is you look for the tower which gets a better connectivity and what people they are using more in this market.

So, that that leads to the fact or that leads to the this fact leads to the decision of the buyers that what they are buying. And this is generally called as a net work externality because the benefit reach to the other consumer. When one consumer uses this or similarly when you are planning to buy a laptop you always say that who is the nearest service provider. If it is Sony via the nearest service provider is there you generally buy it. If it is Dell if you find that the nearest service provider is there generally you buy it.

So, it is about the network extended because since many firms they are using many consumer they are using the single product that that leads to the positive external benefit to the other firms with in term of the other facility available, with respect to that firm. And that generally creates as a entry barrier for the other firms to enter into the market.