Managerial Economics
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Lecture - 15

Welcome to the 2nd module of Managerial Economics, in previous 7 lectures, we are discussing about the introduction to managerial economics. And then different tools and techniques that how you, how generally the decision making is done, and what is or what is being used for the decision making. So, our 2nd module consist of Theory of Demand, which talks about demand analysis, essentially how demand is related with the other market forces, like supplier how it leads to equilibrium.

And also we will talk about the different law of demand, whether that is in term of demand, consumer demand or in term of the utility. So, basically this module talk about three topics, one is the demand analysis, second one is the elasticity of demand, and third one is consumer behaviour.

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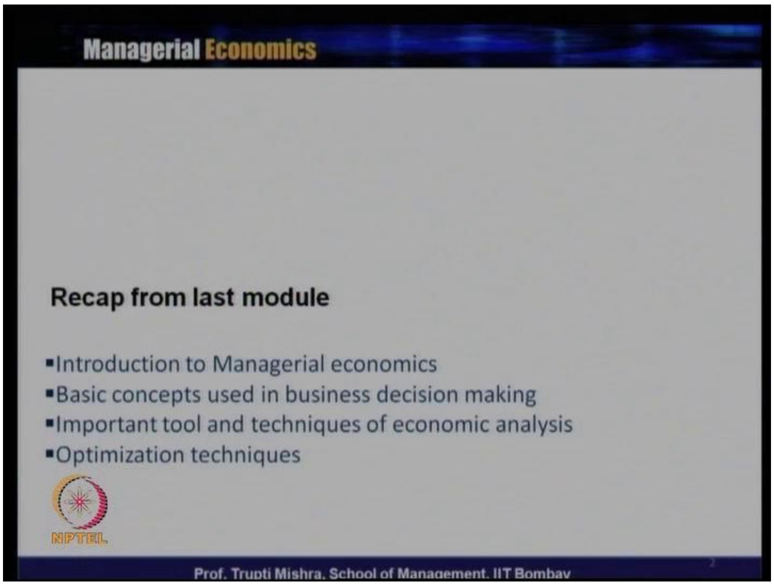

So, if you will do a quick recap what we did in the last module, we introduce the subject managerial economics, how it developed from the subject economics. Then we discussed about few concept that used in the business decision making, then we discussed about the tools and technique for economic analysis and finally, we discussed about the optimization technique. Now, this present module the, if the focus is on the demand, supply, the equilibrium, how the elasticity of demand and elasticity of supply generally takes place and finally, what is the consumer response to the change in the demand and change in the supply, what we will be discussing through the consumer behaviour.

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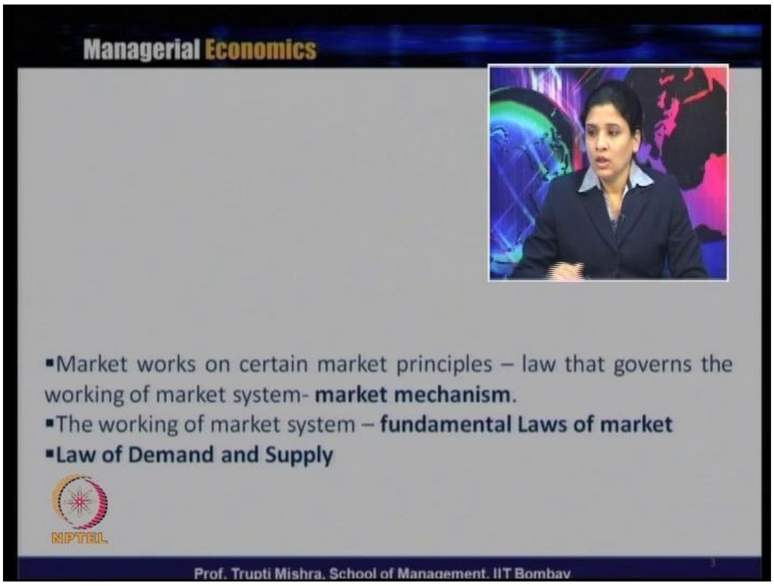

So, if you look at the the economy runs on it is market, and market works on certain market principle, there is set of principle, there is set of laws, on that basis generally the market work. So, market works on a certain market principle, and that governs the working of the market system, so in other word generally we call that as the market mechanism.

And working of any markets system, the basis always on the basis of the fundamental laws of the market; and the fundamental laws of the market is nothing but the law of demand and supply, because demand and supply are the two market forces, those essential for the working of the market system. So, when you talk about the fundamental laws of market, it is laws of demand and laws of supply.

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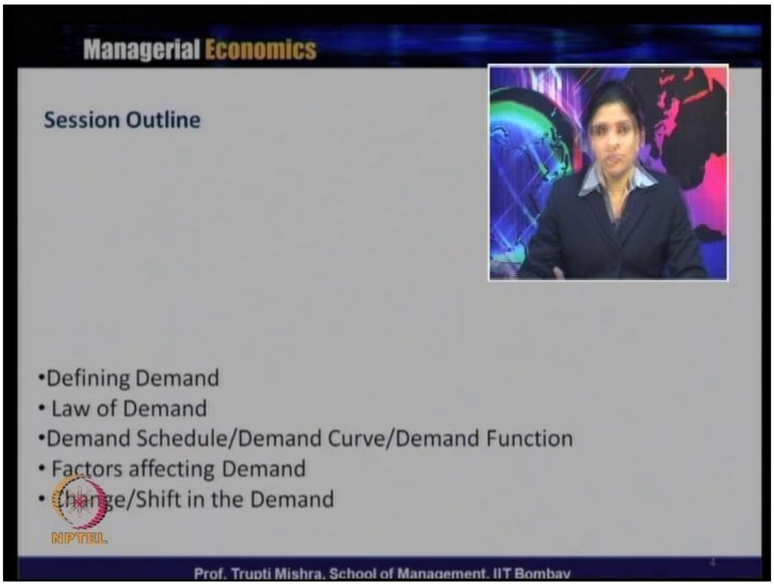

So, in today's session, we will focus more on the first part of the market forces, that is demand forces. We will define the demand, we will discuss what is the law of demand how it works, then we will discuss a demand schedule how the demand curve is basically drawn, what is the demand function, what are the factors that affect demand and in which scenario there is a change or there is a shift in the demand.

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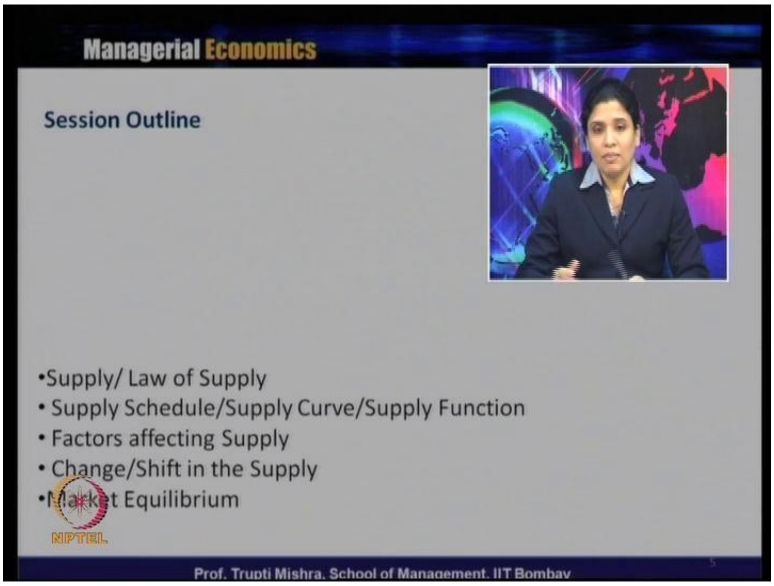

Then the second part of this session will be on second market forces, that is supply forces. So, we will define what is supply we will discuss the law of supply, then we will discuss the exception of law of supply, in which scenario generally the law of supply never works out as per the rule or as per the principle. Then we will discuss about a supply schedule, we will talk about a supply curve, supply function, supply function keeping by two variables and the multivariable. Them we will talk about the factors affecting the supply, and in which scenario there is a change or the shift in the supply.

And finally, looking at the demand forces and supply forces, we will see how the equilibrium is generally maintained in the economy or in the market, what are the preconditions in which cases, when there is a change in the demand, when there is a change in the supply. How it leads to disturb the equilibrium, whether the equilibrium gets really disturb or there is no change equilibrium, what are the scenario that we are going to study in the market equilibrium.

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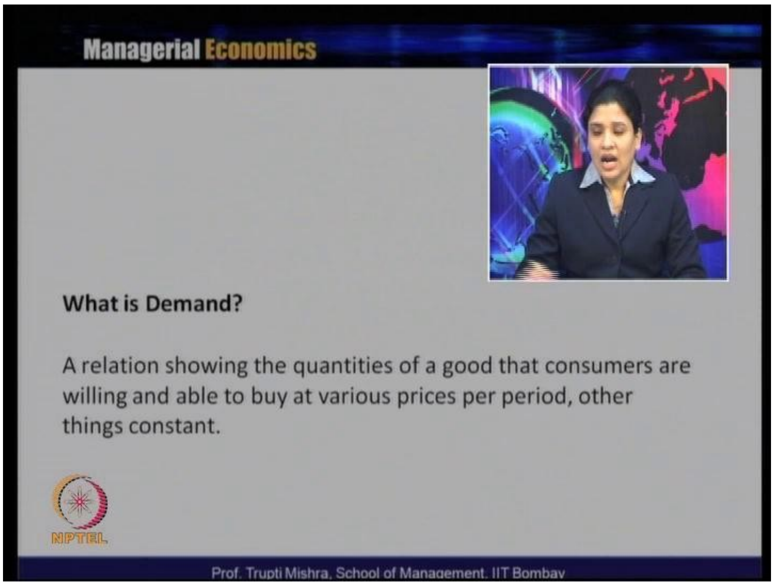

So, we will start from the first market force that is demand, and when we define demand this is basically a relation showing the quantity of the good that consumer are willing and ability to buy at various prices per period, other things remaining constant. So, here if you look at the other things, whether it is the income, whether it is the market situation, whether it is the forecasting about the price, all other variables that has a has some say when it is comes to demand for the product, all other variables are remain constant. And the relationship between the quantity of the goods or the quantity of the products, and the may be at a typical price or a typical time period that is generally demand.

So, demand is nothing but, relation showing the quantity of a good that consumer is willing and able to buy at various prices per period, other things being constant. So, if you look at the definition there are two point, one is willing to buy and the other one is the able to buy the product.

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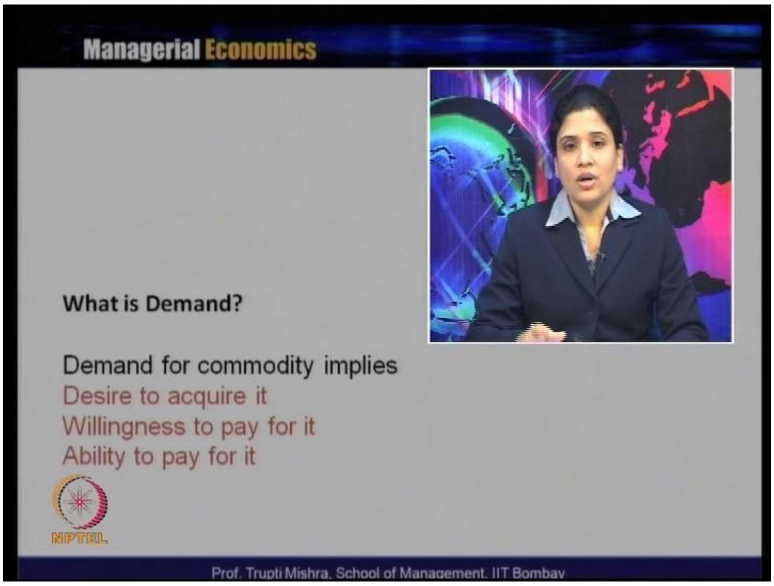

So, if you will take forward this, then specifically a demand for commodity depends on three preconditions, the demand takes place when the consumer has the desire to acquire it, when the consumer has the willingness to pay for it, and he has the ability to pay for it. So, what is this desire to acquire it, may be there are many products what the consumer is willing to pay for it or maybe he has the ability to pay for it, but till that time the consumer has no desire to acquire that product, we cannot convert that into demand.

Because, the consumer has to wish for the product, the consumer has to desire for that product, then only it can be converted into demand. The second criteria or the second precondition is willingness to pay for it, so if you look at even if the consumer has a desire to pay for it, desire to acquire the product, he has the ability to pay for it. If there is no willingness to pay for it, the it cannot be again part of demand, because the consumer is not ready to pay for the product, in that case we cannot convert that into demand.

Similarly, ability to pay for it this is strictly on the basis of income, whether there is a purchasing power of the consumer is present or not; if there is a consumer purchasing power is present in the consumer, then the consumer has also the ability to pay for it. So, in this case if you look at the preconditions are three desires to acquire it, willingness to pay for it, and ability to pay for it. So, whether you, if one of this three condition or one of this precondition are not being made, then in the demand is not possible.

Even if the consumer has the willingness to pay for it, ability to pay for it, if the consumer has no desire to acquire it, it cannot be converted into or the part of demand, if the consumer has no willingness to pay for it, then again it cannot be part of demand. And if the consumer has no capability in term of money, in term of payment or may be not able to pay for the product, then again it cannot be considered as a demand. So, demand for commodity implies that, the consumer has to, consumer has the desire to acquire it, willingness to pay for it, and the ability to pay for it.

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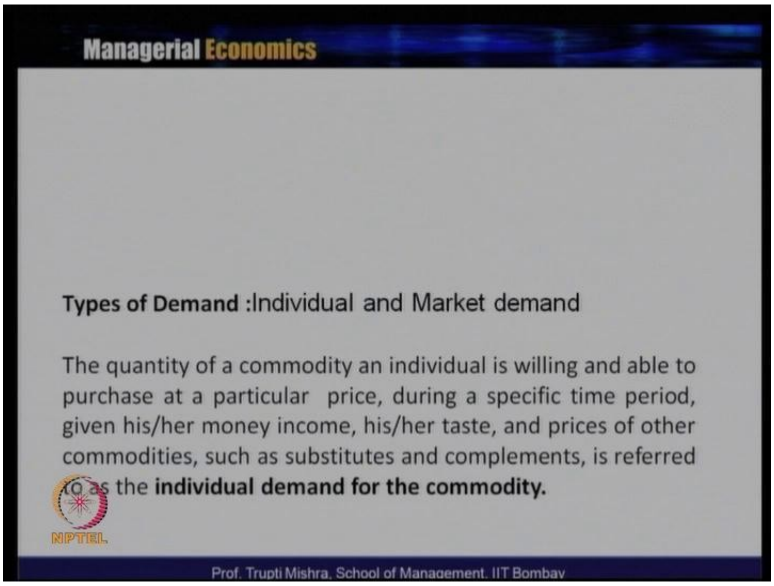

Then there are different types of demand, so will see few different types of demand, the first one is individual and market demand, the quantity of a commodity and individual is willing, and able to purchase at a particular price, during specific time period given his or her money income, taste and prices of the other commodity, such as substitute is referred to as the individual demand for the commodity.

So, individual to in a very simplify manner individual demand is nothing but, what the individual is willing to and able to purchase at a particular price, any specific time period keeping his taste, keeping his price, and also looking at what are the substitute and compliments products available in the market. So, any consumer, any specific time period at different price level or the same price level, whatever the willingness to and ability to pay for it that is typically the individual demand. So, here we have if you introduce if there are two term over here, what needs may be little bit explanation, one is substitute and second is compliments.

So, one category generally the substitute could, another category is the compliment goods. You take the example of tea and coffee, they are the substitute goods because, if you look at people if they are not very specific about tea or not very specific about coffee, they consume this two products interchangeably; either they have coffee or they have the tea. So, tea and coffee when one product is substitute of another product, this is generally known as the substitute goods.

Similarly, if you look at petrol or diesel, again it is the case of your substitute goods because, one good is substitute for the other one; similarly compliment is one, where one product cannot be consumed without another product. So, if you take the case of again tea sugar or coffee sugar or tea milk or coffee milk, again they are the complimentary product, because you cannot consume one product without another. You take the example of suppose car petrol or car diesel, you cannot run the car without petrol or without diesel, so in this case we can say that car petrol or car and diesel, they are the complimentary to each other.

Similarly, if you are coming to the food item, like if you take the example of bread and jam or bread and butter, again they are the complimentary goods, because you can the consumer cannot consume one goods without consuming another. So, if the product is independent, it is not depend, the consumption of the product is not dependent any other product, basically this is the normal goods. Otherwise, we get another two category of goods, one is substitute good the typical example is again tea and coffee, and second one is the complimentary goods, in this case one goods cannot be consumed without consuming the other goods; the typical example, we always take whether it is car petrol, car diesel, butter bread or jam and bread.

Similarly, may be there are numerous example, where we can say that one goods cannot be consumed without the another good, so considering this typically in case of individual demand, irrespective of the substitute good, complimentary goods, the prices of the goods or the taste and preference of the consumer. At any specific time or any specific time period, whatever the consumer demand of typical commodity that becomes the individual demand.

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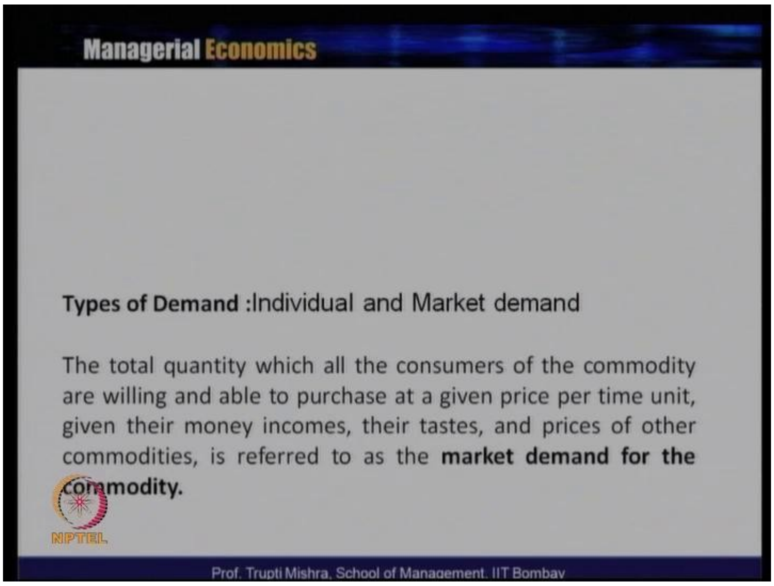

Suppose, if you look at what is your grocery demand per month, that is that becomes the quantity demanded of a specific consumer on a specific month, corresponding the prices of the different items in the grocery basket. The second one is the market demand, market demand is the total quantity which all the consumer of the commodity are willing and able to purchase at a given price per time unit, given their money income, their taste, prices of the other commodity is referred to the market demand for the commodity.

So, in this case if you look at, the other things remaining constant, the price is constant, the income is constant, the taste at the of the consumer at that typical time period is constant; prices of the other commodity, whether it is substitute, whether it is compliments, they are constant. And given all this the total quantity, what all the consumer they are consuming in a specific time period that becomes the market demand.

So, if you take a simple example, may be you can take a case of how much a cup of coffee you take during a day, some total of all the all the quantity per day, per month basis that is your monthly individual demand for cup of coffee. But, when it comes to the coffee vendor for him, it is always not the individual demand, what consumer one is consuming or what consumer two is consuming, for it is that monthly how much unit of coffee that vendor is selling that is the market demand.

So, if the market price of coffee is 6 rupees, and all the individual at the 6 rupees price whatever they are consuming in a month that becomes the market demand. So, here product is coffee price is fixed, the consumer whatever they consume throughout the month, so in a specific time period on a monthly basis, price of the coffee given at 6, all the consumer whatever the amount of coffee, they are consuming that consist of the market demand. So, in one way we can say the sum total of all individual demand in a specific time period, in a specific price that becomes the market demand for the product.

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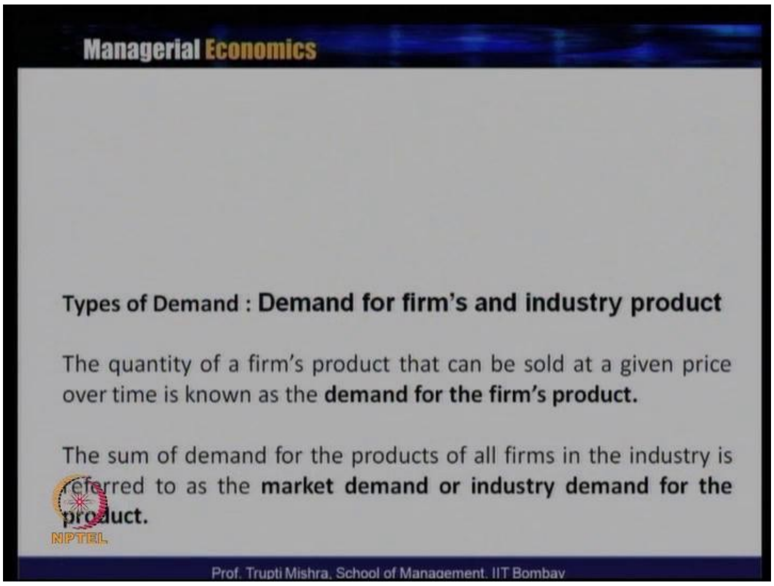

Let us go to the second types of demand that is firms demand and industry demand, the quantity of firms product that can be sold at a given price, overtime is known as the demand for the firms product. And the sum of demand for the product of all the firm in the industry is refers to the market demand or the industry demand of the product. So, it is if you look at, again it is the case of same differences between the individual demand and the market demand.

Now, what is the difference between the firm and the industry, industry is sum total of the number of firms, the firm also produce a product same product and the industry as a whole they also produce the same product. So, the quantity of the product what is being demanded for from the firm of from the typical firm that is become the firms product; and what is the sum total of demand for all the firms across the industry that becomes the industry demand.

So, again we can explain it using the same concept that, the sum total of all the firms product at a given price, at a given time period is consist of the market demand or industry demand for the product. Because, if you look at firm is nothing but, the sub may be the part of the industry or industry is nothing but, the sum total of all firms in the industry. So, here also again the difference between the firm and industry product is, firm is the individual productive unit, and industry is the sum total of all the firms they are producing the same product.

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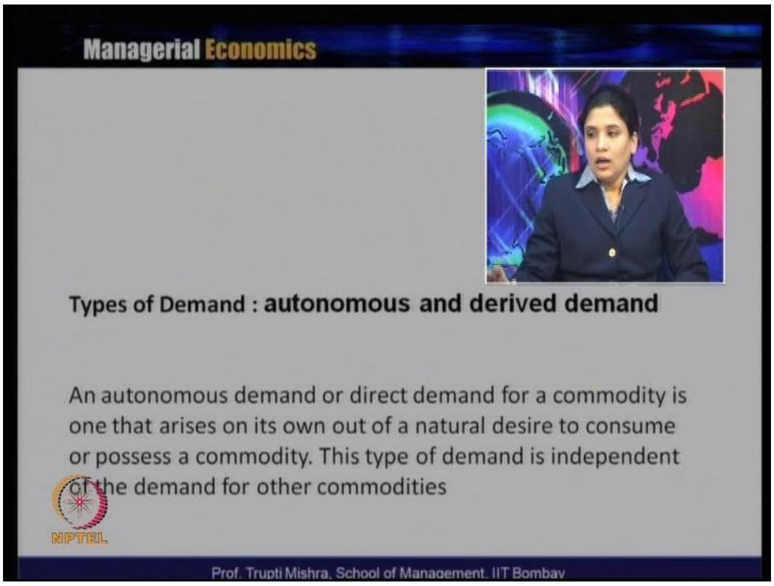

The third type of demand is autonomous demand or the derived demand, so autonomous demand or the direct demand for a commodity is one, that comes on it is own out of the natural desire to consumer purchase a commodity. This type of demand the independent of the demand of the other commodity, so autonomous demand is there is no forces that guides the demand to happen, it generally comes from the natural desire to consume or natural natural natural desire to own a commodity or own a product.

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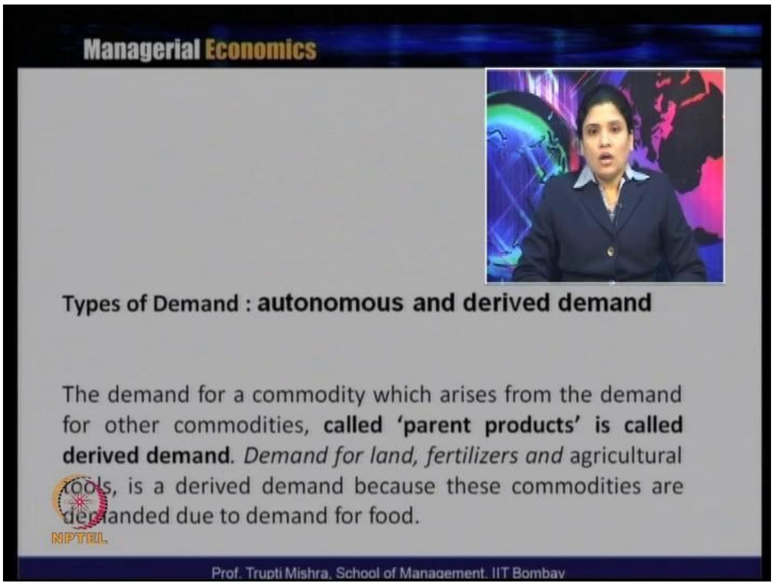

However, if you look at the derived demand, the demand for commodity which arises from the demand of other commodity that is the called as the parent product, which called generally the derived demand. So, in this case the demand for this product, generally comes from the demand for the other product. So, if you take specifically what is the need of agriculture or what is the need for land or what are the need for fertilizer? You need land, you need fertilizer, you need agricultural tool for harvesting, and this is always a derived demand, because they they those commodities has demanded due to demand for food.

Why the agriculture being done, because there is a demand for grains, and demand for grain comes from the fact that there is a demand for the food; and that leads to demand for grain, that leads to demand for land, that leads to demand for fertilizer, and that leads to demand for agricultural tools. So, that the basic difference between the autonomous demand and the derived demand is, autonomous demand is independent it can just happen, it can just take place when the consumer has the desire to desire to acquire it, willingness to pay for it or ability to pay for it, whereas derived demand is when it comes from the demand for the other product.

So, if you if you can connect this two this this may be also like a product, which is not direct rather this is a indirect demand or may be derived demand. Because, the demand takes place for the another product which leads to take which needs to, which leads to the demand for the this typical product. So, autonomous is direct, and derived demand is always comes from the, demand for the other product.

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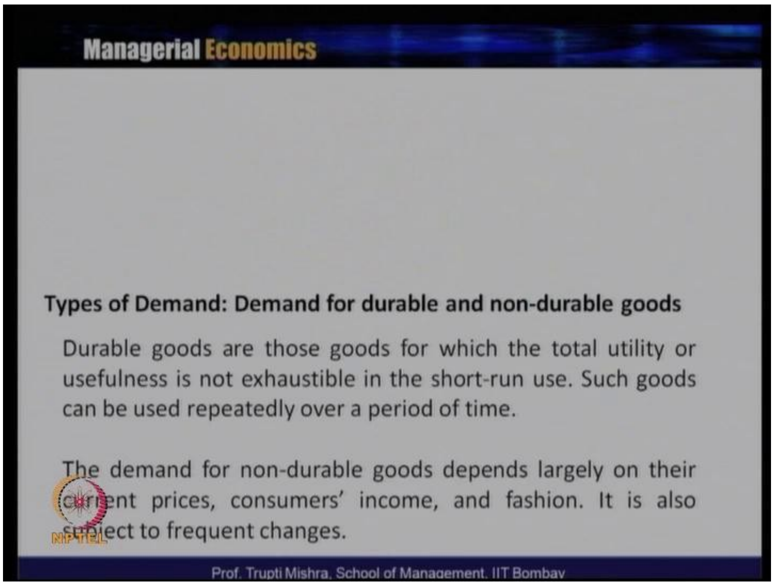

The next category of types of demand comes is demand for durable, and the non-durable goods. Durable goods are those goods for which the total utility or usefulness is not exhaustible in the short run, such goods can be used repeatedly over a period of time. So, it is a kind of non perishable goods, which can be used again and again, the consumption can be repeat and the utility or the usefulness of the product is not with for one time consumption.

So, durable goods are those, generally the usefulness of the product as a specific life time and it is not in the short run. And the non-durable good is basically the perishable good, it depends largely on the consumer current prices, consumer income and fashion, it is also subject to frequent change. Like if you look at the demand for durable goods, may be it is a vehicle, may be it is a house, which if you look at and they are usefulness or their utility never goes overnight or it it is not for the short run, rather the use for the typical durable goods for long life.

If you take the example of a refrigerator, if you take the example of a computer, if you take a example of a television, specifically their life time is not short their life time is long, at least it goes for 5 year, 10 years, 15 years and some time more than that. So, the demand for these goods are always different from the non-durable good, non-durable good is one, because where the utility or the usefulness of the goods goes along with the consumption. So, once the good gets consumed, the utility usefulness goes with that, so the demand pertain is there is a variation in the demand pertain, between the durable good and the nondurable goods.

Like when there is a change, when there is a need to change the durable goods, when you feel that, if your already use it for 5 years, we have already use it for 10 years, you are getting a good. May be if you are getting a good exchange offer, if you are getting a good may be discount, you always feel I have already used this product for more than 10 years, more than 15 years. And if I am getting a good resale value, and some discount on the new value, then I am going for it or when the technology changes, when the fashion changes along with that the demand for the durable goods change.

If you look at the television specifically, may be earlier it was just a normal screen, then we came to the age of large screen, and then now if it is a case of LED and LCD. So, in this case the demand changes, when the when we get a new product, when the in term of may be the change in the technology, change in the appearance or the change on the as a whole the product, when there is a new product is being launched.

But, in case of non-durable good like you take the example of which is short may be vegetable is the extreme form of non-durable good, like what we use as the cloths, what we use daily may be it is a pen, maybe it is a note book, it is may be dairy. What you, what we change frequently, because the utility that goes with a very short span, whatever the usefulness of the product that goes like, if you take the example of a ball pen till that time in case there it is being used, so it is may be 10 days, it may be 20 days, it may be 1 month, it may be 2 months. So, the usefulness of the product is short, and we need to change it when there is requirement, either when there is a change in the price, when there is a change in the fashion and when there is a change in the income.

How it is related to change in the price, may be if the current price gets changes, if we are getting something goods at lower price, you always offer it, and because this is also a low value product as compared to the durable goods. Similarly, if you look at the fashion, like we change our cloth patterns on the basis of fashion, we feel that this is outdated and I am not going to consume it, any more.

In that case again the demand comes over there, because there is a change in the fashion and nobody use the outdated product rather, everybody opt to use for the whatever comes new in the market. So, that is the reason, the use of durable and non-durable goods generally different, and that leads to the variation in the demand pattern of demand pattern of durable and the non-durable goods.

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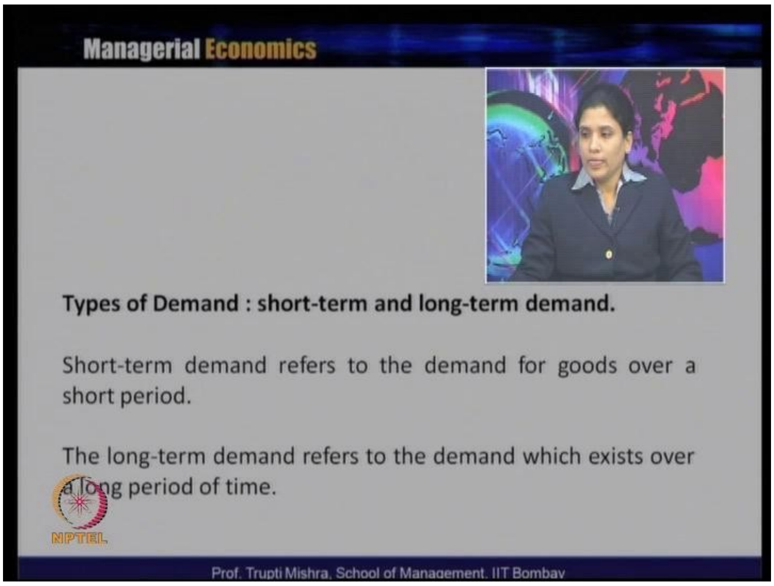

The last category what we discussed on the types of demand is, short term and the long term demand. So, short term demand refers to the demand for goods over a short period, whereas long term demand refers the demand which exist over a long period of time. So, in this case, again we can link this to our demand for durable and non-durable goods.

Generally, durable goods are long term demand, because demand which exist over a long period of time, and the demand for the goods over a short period or may be again you can link this, because if it is usefulness is less, may be you use that and this is a short term demand, because your next demand is something else. But, long term demand is again what you use on the daily basis, that is then that again you can link that way long run demand.

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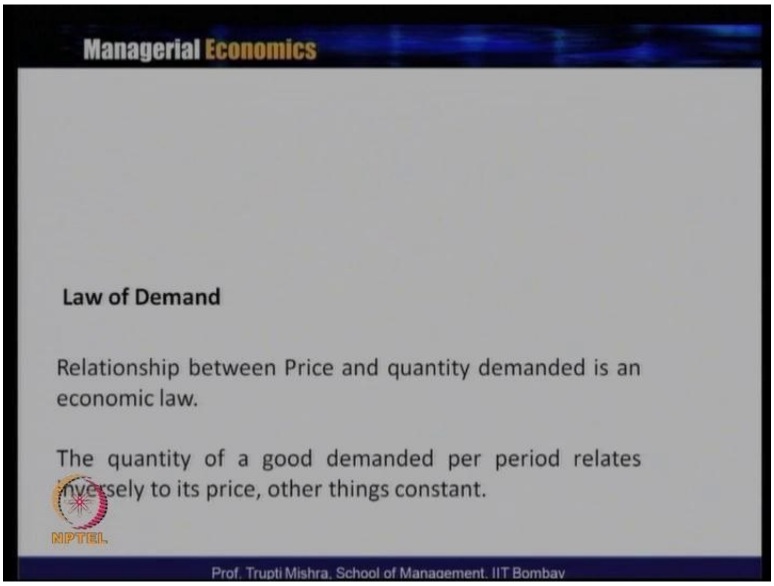

Now, we will discuss, what is law of demand? As we discuss in the very beginning that, the market forces governs by the demand forces; on the basis of certain principle, on the basis of certain laws so, in this case we will see what the law of demand is. So, law of demand the basis is the relationship between the price and quantity demanded, and this is generally known as economic law that, how the price and quantity they are related to each other. The quantity of a goods demanded per period, relates inversely to the price other thing constant, so law of demand says that, there is a inverse relationship between the price and quantity demanded, other things remaining constant.

And what are the other things here, the other things here is the the factors that those affects the quantity demanded for the product. So, keeping all other factors remaining constant, which affects the quantity demanded, the quantity of good inversely related to the price in a typical time period. So, law of demand says that there is a inverse relationship between the price and quantity demanded, other things remaining constant.

So, whenever there is a increase in the price, quantity demanded suppose to decrease, and whenever there is a decrease in the price, the quantity demanded suppose to increase assuming all the goods are normal goods. So, law of demand says that, there is a inverse relationship between the price and quantity demanded, assuming all the goods are normal good, and all other things are remaining constant. But in few cases there is if you find the law of demand does not hold good, there are few exception where law of demand cannot be practice, or the law of demand does not hold good.

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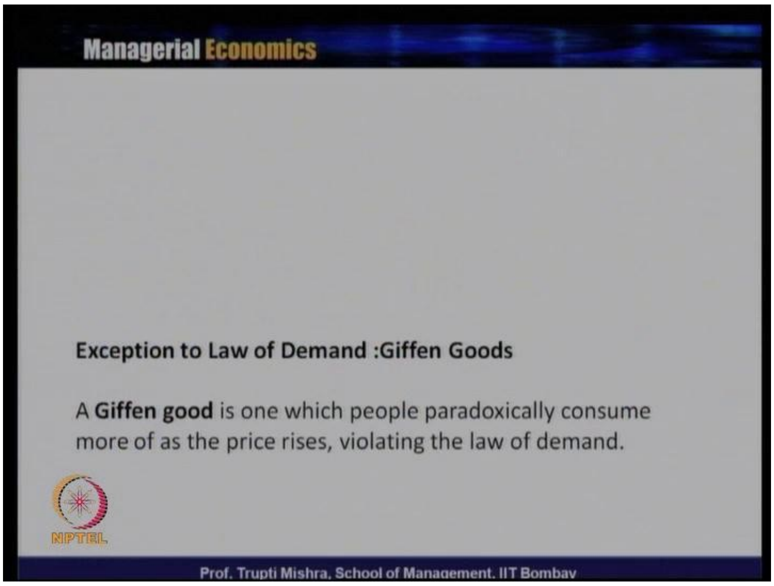

The one example is Giffen goods, so till that time we have introduced three type of goods, if you look at one is normal goods, second one is the substitute good, and third one is complimentary goods. So, this a different kind of good that is Giffen goods, sometimes this is also known as the inferior good, or you can say it a specific case of inferior good, this is Giffen goods comes into picture.

Now, what is a Giffen goods, a Giffen good is one in which one which people paradoxically consume more as the price rise violating the law of demand; so in case of Giffen good, law of demand does not hold good. Because, once the price increases for this product, generally people they consume more of it, but what is the what law of demand tells us, law of demand tells us that whenever there is a increase in the price of the product, generally the quantity demanded for that product decreases.

So, in this case the pattern is not such, because whenever there is a increase in the price, there is a increase in the quantity demanded also. And that that is why we say that, this is not a normal good, this is a Giffen good; and in case of Giffen good law of demand does not hold good.

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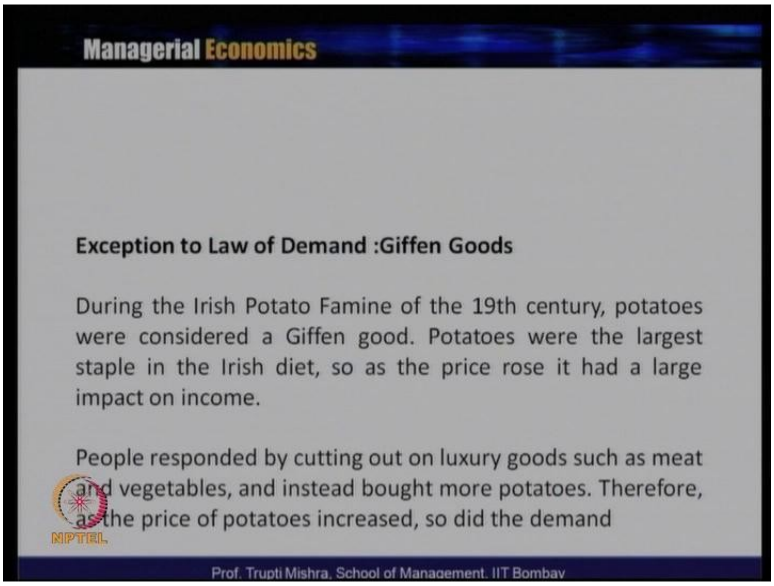

So, there is a, so in the background there is a story to this Giffen goods, how Giffen goods comes into picture, and how how the law of demand does not hold good in case of Giffen goods. So, during Irish potato famine in 19th century, potato where the consider as the Giffen good, and potato where the largest staple in the Irish diet, so as the price rose it had a large impact on income. People expanded by cutting out on luxury goods such as meat and vegetables, instead of bought more potato therefore, as the price of potato increase, so did the demand.

So, if you look at what is the consumption basket of Irish, during that time in 19th century the consumption basket or their food basket consist of potato, meat and vegetables, but being potato is the staple diet, the composition of potato more in the food basket; price increases for potato, there is no change in the income of the consumer. So, in this case what the consumer they will do, since potato is the staple diet, they need to have the same quantity, even if there is a increase in the price.

So, in this case consumer what they did, they started cutting down their expenditure on meat and vegetable, which is consider to be the superior in the food basket, and they bought more potato, because potato is staple diet, even if price increases still they have to consume the same amount. So, the expenditure from the other superior items, from the consumption basket being cut, that is meat and vegetable, and the same same money is diverted into potato.

And in this case the price of potato increase, and also the demand because, even if price is increasing still people they are buying more of it, which is again a which is again the exception to law of demand, where the whenever there is a price in the price increases that leads to decrease in the quantity demanded. So, this is one case, in case of Giffen goods the price increases and along with that the quantity demanded also increases, and that leads to exception of the law of demand.

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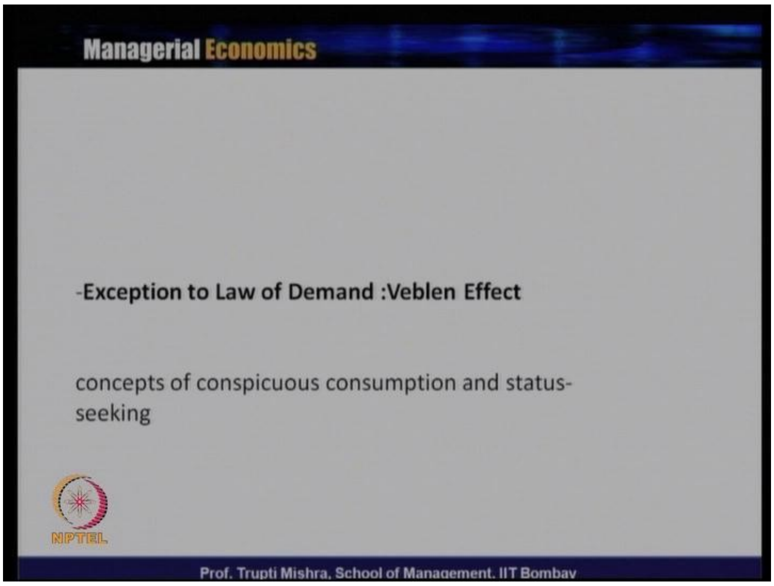

The second one is the Veblen effect, and this generally introduces the concept of conspicuous consumption and the status seeking. If you look at in our daily life, it also happen that if something is expensive we always feel that, this is good because, there is a perception that the, if there is a increase in the increase in the price of it, generally it has to be good. Whether it is a designer product, whether its jewelry, whether it is a may be designer accessories, we always feel that if they are charging more it has to be a good quality.

So, consumer they have the perception that, if price has been charged premium, then the quality is good and the product is good, and this is generally known as Veblen effect. So, in this case even if there is a increase in the price, people they always feel that, if there is a increase in the price, I think there is a increase in the quality and they generally go for it. And also this is consider as the status checking, if the if the consumer is consume some highly priced product, it always leads to the status checking, and in this case again the law of demand is not applicable.

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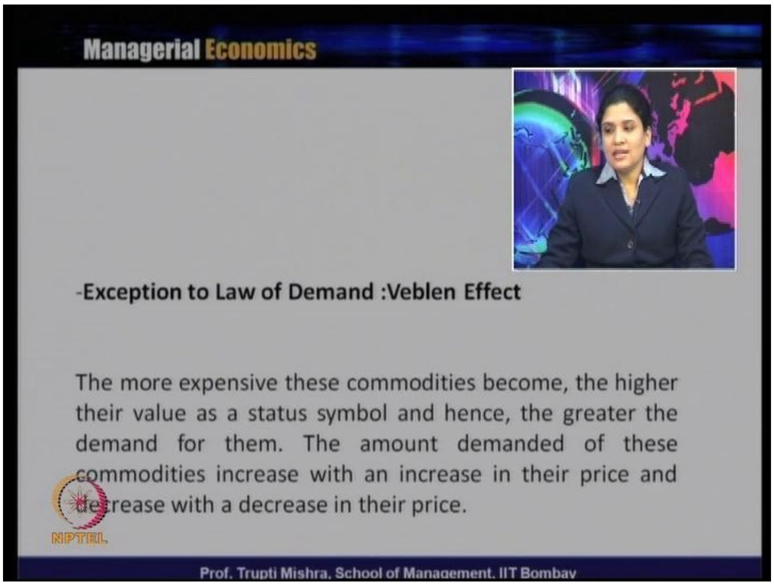

So, what is the perception over here, the more expensive this commodities become the higher their value as a status symbol, and hence the greater the demand for them. So, if it is more expensive they feel that it is again, as a value of a status symbol, and they feel that is a good quality attached to it, and the there is a greater demand for it. So, the amount demand of this commodity increases with an increase in their price, and decrease in their decrease with their price.

So, in this so typically for this type of product, when there is a increase in the price that leads to increase in the quantity demanded, and when there is a decrease in the price people they stop consuming this or they decrease their consumption. Assuming that since this is a lower price product, there is no quality attached to it or there is no value or the status attached to it. So, this is about if you look at in this case, typically this is the perception of the consumer that high value goods is better quality, and it leads it links to also status.

Whereas, the low value good even if it is may be good, still the perception is that low value products since, it is not on a higher segment, it is always a, it is always a inferior product as compared to other product, and generally they decreases their consumption for it. So, in case of Veblen goods or incase of Veblen effect, again the law of demand does not hold good, and the price and quantity demanded is not related inversely.

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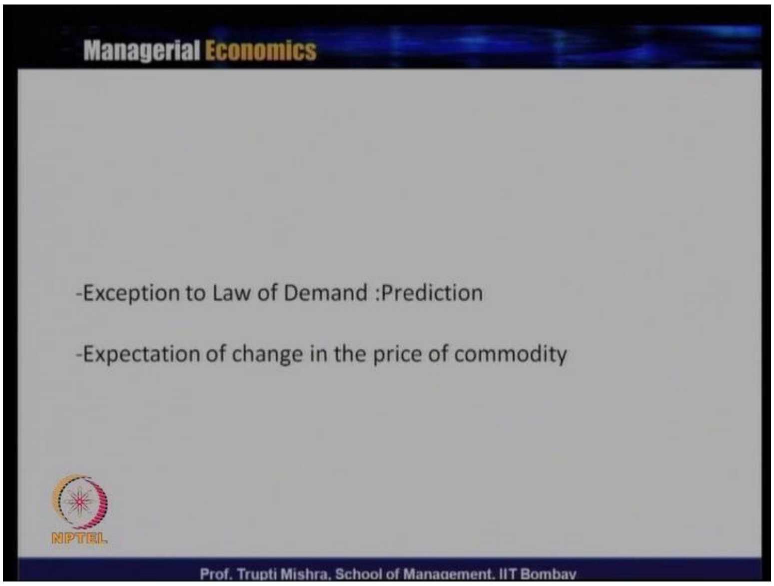

There are one more exception that is law of demand, that is in case of prediction or may be expectation of change in the price of the commodity. So, if the price is going to increase, if there is a expectation, if there is a prediction that the price is going to increase, people they buy more the demand increases. And if the price is going to decrease in the future, that leads to decrease the consumption at this movement.

So, sometimes their prediction, when there is a prediction the law of demand does not work the, so if you look at before budget, if you have seen people they predict or people they do a forecast that after budget, the price of this going to increase, the price of this going to decrease. That leads to some disturbance in the decision making or some disturbance in the the consumer patterns, for consumer demand pattern for different goods. If the price is going to increase, the consumer feels that ok let me buy more, so even if the price is on a higher side, still the consumer buys more.

And if the price is going to decrease, the consumer even if the price remain constant still the consumer is consuming less, assuming the fact that when the price is going on a lower side he is going to consume more. Similar, if you look at whether the prediction is related to durable goods or whether the prediction is non-durable goods, the prediction works well, the prediction works more in case of durable goods.

Because, you cannot, in case of durable goods, you can postpone your consumption till that time you are getting a favorable price, but in case of non-durable goods the prediction never work, because this is only kind of necessity what we use in our daily life, so we cannot postpone the consumption. And in that case generally the prediction, the role of prediction is bit less, and in case of durable goods this generally works and law of demand does not hold good.

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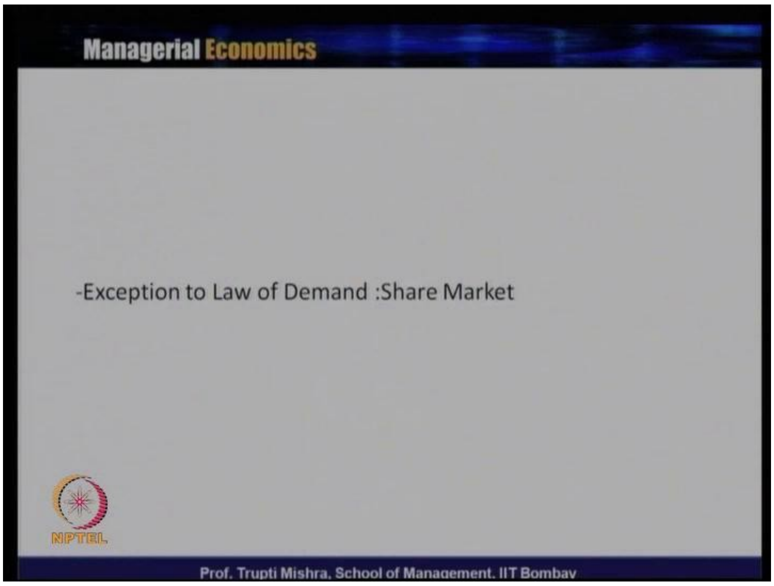

Similarly, in case of share market or stock market where the basis is speculation, if the price of the share is increasing, price of the stock is increasing, there is a perception of the consumer that may be again it is going to increase, and they are going to get more value if they are buying more. So, since the basis of share market or since the basis of stock market is speculation, the law of demand does not hold good there, and this is one more exception to law of demand.

So, if you look at by principle of by economic principle there should be a inverse relationship between price and quantity demanded, and that is generally known as law of demand. But, in case of few instances or in case of few type of product, generally the law of demand does not hold good like in case of a Giffen good, Veblen good or when the market is governed by prediction or some kind of market like stock market, share market, where the basis is speculation, the law of demand does not hold good.

There may be few more examples, like in which case like when it comes to suppose necessity, what is if the consumption is necessity or if it is like emergency, if it is a life saving drugs again the law of demand does not hold good. Even if price is on a higher side, since it is a part of necessity, this is a life saving drug, the consumer they are not changing the demand pattern, like if you take a medicine everyday as a precaution or as a part of treatment, generally the consumer takes that even if there is a increase in the price. So, in case of few again the law of demand does not hold good.