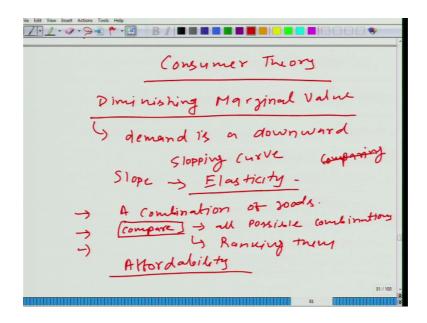
## An Introduction to Microeconomics Prof. Vimal Kumar Department of Economic Sciences Indian Institute of Technology, Kanpur

## Lecture – 33 Towards Consumer Theory

So, let us start a new chapter called Consumer Behavior or Consumer Theory. Let us go by Consumer Theory.

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Of course, we were talking about consumers in the last chapter also we talked about demand and supply, and demand is nothing but consumers response to the market prices in terms of quantity demanded. And what we learned that quantity demanded decreases as the price increases in the market. Keep help when everything else is fixed ceteris paribus, demand is a downward sloping curve function.

And what we talked about is something called diminishing marginal value you are not marginal rate of substitution diminishing marginal value and what we said is that the first unit that you consume gives you certain level of happiness or certain level of value.

Second unit that you consume also gives you some level of happiness or some value, but this label is definitely less than the earlier label. So, it keeps on decreasing as you have as more you consume more happiness you receive, but at decreasing rate. Addition in happiness is not that high this is what we did. And from here we came up with that demand is a downward sloping curve and then we also talked about the slope not in absolute sense, but in relative sense using concept called elasticity.

Now, we want to that is just the glimpse of what consumers do basically what happens that when you go to a market there may be some other process, but I will try to justify using an example from cricket, but let us see what happens when you go to the market and you want to spend certain amount of money what you think is there are several possible combination of goods available in the market that you can buy. For example, if you live in a world where you have only two kind of goods just for simplicity of course, we live in a more complex world that you have only food and cloth. So, let us say if you have some amount of money then you can buy different combination of food and cloth.

Then why do you pick a particular combination, what makes you pick a particular combination of food and cloth in the market. See for one good when we are talking about one good world then the problem is very simple, let us say you live in a one good world where the one good available is that is food and you can do only one thing using whatever resources you have at your disposal that you use that resources to get food. So, what you would do? That you would exhaust all your resources you can you will keep on buying food more and more more food till you do not have many resources left. Just to make this story more realistic you can think that you are living in on an island and you have only one requirement of food, make lots you say it is available in plenty because you can make some sort of cloth using leaf of certain plant. So, you are not worried about.

So, whole your time that let us say you have 8 hours a day that you can utilize that you can use to get food. So, what you would do? Let us say you do not have any other you know laser is not a consideration I am talking about one good world, not two good world where you talk about food as well as laser relaxation is not an option I am talking about. So, you spend all your you spend more and more and all 8 hours you devote to get food unless you get saturated in the middle like after 4 hour you get enough amount of food that you do not need to work anymore that can be once you know. But let us say that we always there this is an assumption and we will make several a jumps and as you will see that we move in this chapter we will have to make several assumption about consumers behavior that we will learn.

So, one assumption that we can make that we always prefer more over less. So, in that case you will work for whole 8 hours to get food. So, this is a very simple case you do not have to make any choice you do not have any choice this is what you do. But now you let us say that there are two possibility 8 hours you can devote either to get food or you will have to prepare cloth from leaves. So, now, this 8 hours can be utilized in a various different ways various different combination of food and cloth you can get. So, which one would you pick and how would you decide.

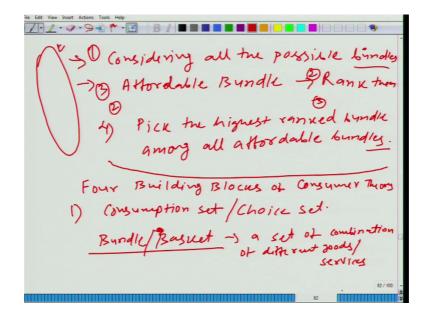
Student: According to preferences.

According to preferences, we have been talked about preferences. So, what I am saying just in general what we are saying what we do typically whenever we have a combination of goods that we afford what we do, we compare, compare is the word. Compare is one important think that you compare all possible combinations, you compare all possible combinations. And by comparing when you are comparing what you are doing basically you are ranking them comparison implies ranking some sort of ordering that this one you like more this one you like less and you order them.

Then the second factor that you look at is affordability probably, among all the bundles after ranking them you look at which bundles are affordable and among all the affordable bundles you pick one which is ranked highest among all those affordable bundle.

So, three things you are doing basically you are comparing or you can say 4 things we are doing, first, let me write it here.

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Next 4 thing you are doing you are considering all the possible bundles you can of course, change the order it does not matter much here I am going to change the order a little bit, now among all the possible bundle you look for affordable bundle and you can do before you can even before you look you look at the affordable bundle you can rank them. So, one let us put two here, three here, it does not matter two here and three here [FL] fine.

Now, let us look at the fourth what you do you pick, pick the most the high peak the highest ranked bundle among all affordable bundles fine. You may say that oh I do not buy like this I go there I know that what I need to buy I need to get good day biscuit I go there and I get good day biscuit. I do not do I do not compare everything. So, here is my defense a very simple defense that I will give you.

Let us compare this is this is a style to study, this is a style to study I am not saying that we are exactly following this part. But using this we are able to capture our consume consumption decision for example, if you are a student of science and if you have done physics in your 12th you would know about projectile motion. If you compare a batsman hitting a ball it is basically nothing, but a projectile motion of the ball. Does Sachin Tendulkar know about projectile motion? But if as a scientist you want to study the path of that ball how far it would go what you will have to do you will have to use Newtonian

law of motion, you will have to use your concepts that you have learned about projectile motion.

So, what I can say that Sachin Tendulkar has already internalized those concepts in his mind, his mind function along that those lines fine. So, it is not about you know when you are judging a theory if you are judging a concept it does not matter what a junctions we have made, what matters is that is it able to predict the scenario in a relatively well fashion. And if we use these if I say this is the way consumers are making decision probably we are more or less capturing the way consumers are making decisions. Another example would be in there when you are using computation computers to calculate something you use a particular binary mode in your mind I do not think you do all that you all the time you go I have to write it in this particular fashion and do it.

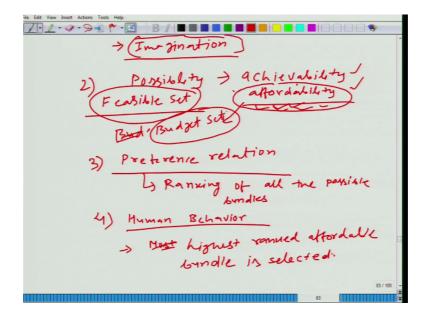
But the way that your mind has already internalized those processes, but if I want to represent on paper I have to make a model. So, we are trying to make a model this is the way I am saying consumers are functioning fine. And it is a realistic enough that it captures this is if we do in this particular way we are not making any mistake, fine. So, corresponding to these 4 steps we have we talk about 4 building blocks of consumer theory consumer theory.

First, we talk about consumption set or choice set. It describes all the possible bundles, I am using world bundles here let me just talk about what do I mean by bundle, bundle or basket. A set of combination of different goods and now you can also include services. So, what do we mean by consumption set choice set? Consumption set or choice set is nothing, but all the possible combinations that you can think of the idea is imagination whatever you can imagine.

At this level we are not talking about what you can afford what you can get in the market we are talking about image imagination, what you can imagine, what you can it is not what you can achieve or what you can afford it is what you can think of all possible such possible bundles are in the consumption set. Like for example, if you have limited amount of money you cannot buy probably a Mercedes car, but if you are talking about your decision about buying a car right now of course, you do not need to consider probably because you know you do not have enough money, so you do not need to consider Mercedes. But when you are buying a car and we are scientifically studying

then what we are saying whatever the possibilities are out there we will consider them and all such bundles are represented in the consumption set.

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Consumption set is nothing, but a set of all such probable bundles, probable bundles or possible bundles. Now, from probability or possibility from possibility we move to achievability or affordability of course, achievability includes affordability let me tell you how. Here we are talking about basically feasible set the second step here the affordable bundle we are talking about here the affordable bundle that is what we are talking here now, but feasible set what do I mean by feasible set. Let us say you are right now in Kanpur and one example I can tell you the caviar that is a luxury food item probably would not be available in Kanpur.

So, even if you have money and we are talking about consumption decisions decision are present because of geographical limitation you cannot buy caviar. So, you would not consider caviar in your feasible set, whatever is feasible because of certain constraints those constraint can be geographical that can be legal that can be monetary when we are talking about monetary then affordability is the word. Whatever combinations are affordable will be in the feasible set if you do not need to preclude them because of some other constraints. So, affordability is the factor there.

So and when we are talking about affordability then instead of calling it feasible set we can call it budget set fine. But achievable is more general than affordable someone may

be affordable, but may not be achievable because of legal or geographical constraint. So, right now we are talking about, but most of the time in this course we will not talk about legal constraint, we will not talk about geographical or any other constraint, we will talk about affordable that this affordability parameter and that is why instead of using feasible set I will be using the budget set fine.

Of course this budget set can take care of geographical constraint also how in case of caviar even though you know in Delhi it is available for let us say 10,000, I do not know the price I am just guessing, you have some x amount per 100 gram you can say that in Kanpur it is available for near to infinity price. So, budget constraint can take care of those situations also. You just have to convert geographical constraint into the budget constraint fine.

The third is something that you are talking about right in the beginning, preferences relation. It is about comparison, it leads to I will come in you know I will talk about preference relation in very much detail little later. But right now this preference relation in something that facilitate the ranking of all the possible bundles. One thing also I want to make it clear that whenever we talk about ranking of all the possible ranking or bundles we talk about all the possible bundles rather than all the affordable bundles because let us say what if we are talking about a scenario where income goes up then we will have to rank again. So, what we do? We keep this ranking independent of affordability. So, whatever we have in the consumption set we rank them and then what we do after ranking them, we start looking at the affordability or achievability if you want to use a wider term fine that is what we have done.

Now, the fourth term would be an assumption and what is that assumption? That is the assumption about human behavior, that the assumption is that most preferred most preferred, if I use the term most preferred or highest rank ranked affordable bundle is selected you can say why we are not taking it as given this is an assumption. So, in economics let me tell you just we use math extensively and we use concept of set theory as language to describe things in economics. So, everything has to be explicitly stated, everything has to be explicitly mentioned. So, we are making it very very explicit here an assumption about human behavior that we human we pick the most preferred or highest ranked affordable bundle fine.