Principles of Management
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Module – 02
Lecture – 10
Premising and Forecasting of Planning

Welcome to lecture 5 and the last lecture on module 2. Today, we are going to discuss about Premising and Forecasting of Planning. In the previous lectures, we had discussed about strategic management and planning, and today we are going to discuss about the planning premises and the forecasting techniques in the planning. We will get into the lecture now.

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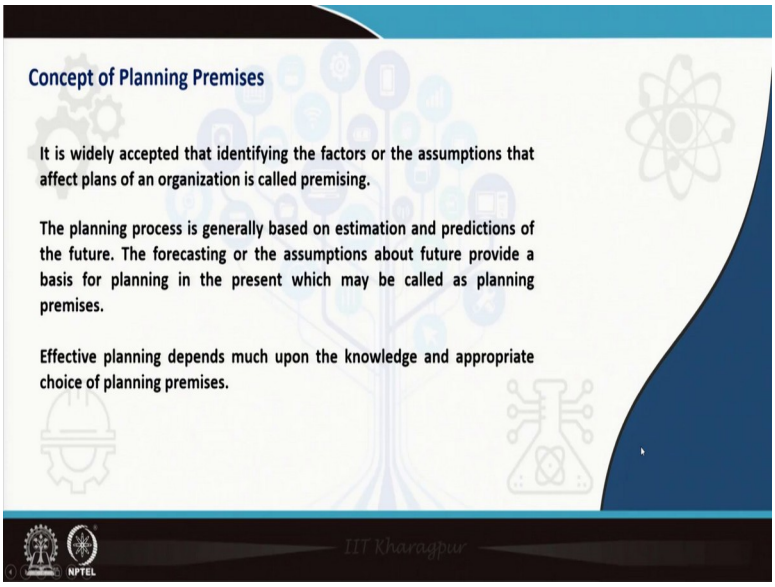

What is premising? You know, we need to understand the concept of premising first. It is widely accepted that you know identifying the factors or the assumptions that will affect the plans of the organization is called premising. So, let us see what are those.

For example, planning process generally based on an estimations or predictions of their future, right. So, when an organization makes a planning, they will make a planning based on deciding what is the future likely going to be, right. So, based on the likeliness of the future they will make their planning. So, generally based on the estimation they done or the you know future they predicted.

So, now, the forecasting it is been done or the assumptions about the future provide the basis for planning in the present which may be called as a planning premises. So, now premise is nothing but you know which whatever the factors or the assumptions that will impact or effect my planning is called planning premises.

So, when an organization makes the planning, they always make planning based on making some estimation about their future or organization always make an effort to try to understand or at least forecast what the future is going to be, right. For example, let me give an example. Let us say we are talking take an example of IT ITs company.

So, every IT ITs companies, so in the beginning of the year, so what do they do? They will always try to make the forecast or they are always assessing the opportunity then likelihood of my plan for the next coming year. They will make the forecast, ok. So, we are going to attract more clients or we are going to have more projects, so based on that forecast are the at least there is an assumption about their future they will make their plans.

Let us take the same example. Let us say one particular company x in the IT company there we are identified the predicted or made some assumption about the future that you know we are likely to get 4 new projects in the upcoming year. The moments we are making that assumptions then that becomes a premise for making my planning. Let us say I am going to get 4 more projects meaning that you know we have to make subsequent planning, for to address that now we are going to have more 4 projects, right.

Now, what all the ways in which you know I will have to handle? Either I might have to increase my manpower because I am going to get 4 more projects in addition to whatever I have, and physical resources, infrastructure, IT infrastructure I should create because I am going to get 4 new projects.

So, that becomes the premises for me to plan my manpower, plan my physical resources, plan my IT infrastructure and plan my budgets because how much of budgets has to be allocated for each of these you know different activities I am going to do. So, that is what the assumption about the futures are the forecasting you know estimation whatever we are making that becomes the planning premises.

So, effective planning depends much upon the knowledge and appropriate choice of planning premises. So, the planning premises actually makes your effective planning, otherwise from without the planning premises it would become very difficult to start your planning, how organisation has to plan.

We will go and see the types of planning premises. So, the planning premises are classified in different ways. Now, we will we are going to see you know multiple perspectives of the planning premises with each perspective we are going to see how it is been classified.

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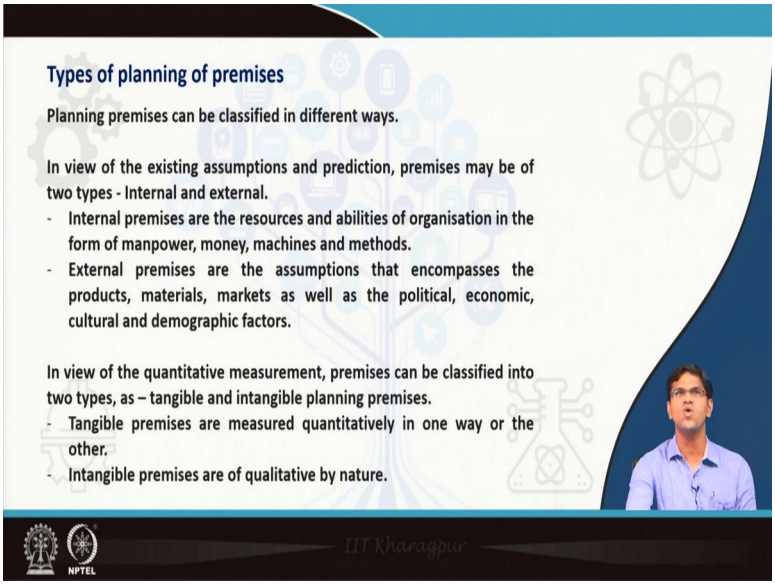

The existing assumption and predictions premises may be of two types; one is internal and external. Now, internal premises are the resources and abilities of organisation in the form of manpower, money, machines and methods which is internal to the organisation. Now, external premises are the assumption that encompasses the products, materials, market as well as political, economic and demographic factors which are all external premises when you are making your planning.

Now, with a view from a quantitative measurement premises can be classified again into two types; one is tangible and intangible planning premises. What are this tangible premises? Which are measured in a quantitative way in one or the other forms, whereas now intangible premises are qualitative by nature, you know which are not you know it

cannot be quantified it is only qualitative by natures. That is the premise which you have to understand, ok.

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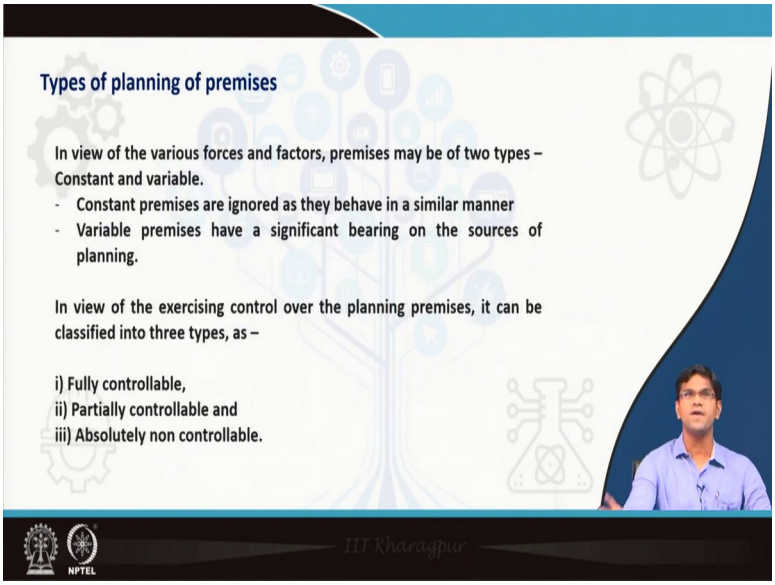

Now, you know types of planning premises again based on the various forces and factors. So, again it is classified into two types based on the forces and factors, which is constant premises. Most of the time these are all being ignored because when the constant premises which is going to be stable through over a period of time then you know people will never you know show interest to understand the constant factors because you know it is constant.

I do not need to you know put in my thought processes to decide how I should react to this because there is all constant. It is going to be stable across over a period of time, so most of the times you know companies ignore those constant premises because it is stable. So, I will already configure that some plans to address this.

Then variable premises, which will have a significant bearing on sources of the planning because variable is where it is always likely to change. You know then organization will put in lot of effort in understanding these variabilities, what is the likeliness of to change and the extent of the change which it will happen, based on that you know variableness organization has to make their planning, right. So, that becomes the premises when they are making the planning. So, as a constant premises and variable premise based on the forces and factors.

Now, in the view of exercising control over the planning premises. Again, it can be classified into 3 types; one is fully controllable, ok, so where you know you have complete control on the way you will be able to make plans because you will be able to make a better prediction.

And partially controllable where you are able to control certain things, but you know beyond that it is not possible. But absolutely non-controllable where you never have any control over on the way you will be able to make planning, so where you know then there is you know absolutely uncertain environment you know where you know 0 probability about, you know you cannot make any prediction about the future, you know you do not have any chance of knowing what it is going to be. So, that is why you know absolutely non-controllable.

Whereas an organization you cannot make any control over it, so where it is likely to give you lot of surprises. So, as an organization making planning for uncontrollable, absolutely non-controllable things they are going to be challenge, ok.

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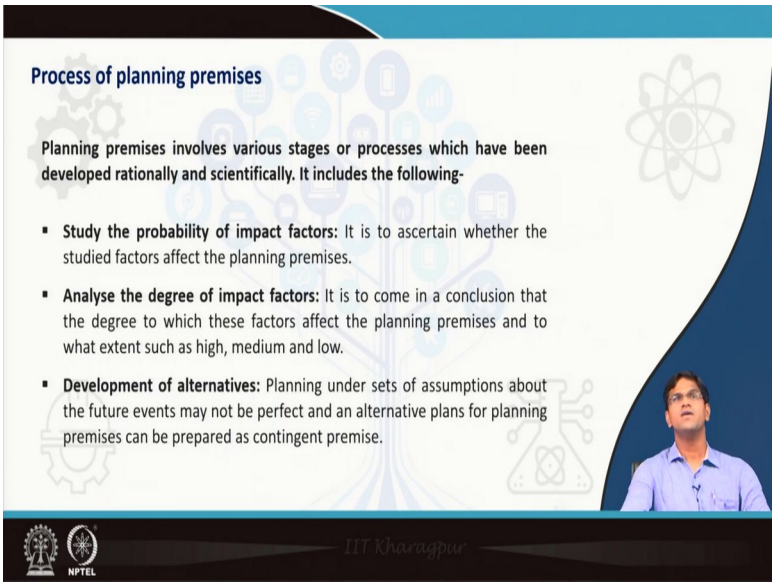

Now, we are going to see the process of a planning premises, ok. So, planning premises involves various stages or process which have been developed rationally and scientifically. We will see what are those.

Study the probability of impact factors. You know you need to see you know understand what are the impact factors how what are how this factor I going to impact my planning premises. For example, I am trying to predict my future of my organizations and I identified you know say you know I am seeing that anticipating that you know organization you know government is going to make some policy changes.

Now, we need to see, let us say I am seeing that now government is likely to take some make some policy changes, now I need to see that whether that policy change will have any impact on my organizational practices or the way my organization functions. In case, it will have an impact on my way the organization runs then it is going to impact my planning premises also. It you know becomes the one of the important factors I need to consider it.

Then, analyse a degree of the impact factor. Now, first step is you know I need to understand the probability of impact factors, what is the you know likelihood of this factors going to affect my plans. Now, you need to see the extent of these impact, ok, is it going to be a high impact or a medium impact or a low impact, based on the you know intensity of the impact I have to you know make my planning's ready, right.

Because it is going to have a high impact on my planning premises then I need to you know provide lot of weightage on it to making my plans, making my strategies, so you know providing resources you know, making resources available to address this challenge.

In case if it is going to be very low then I know I can even sometime ignore or I can you know spend less amount of resources dedicate some amount of resources to handle it, rather than you know dedicating large amount of resource or quantum of my money in the planning process. So, you need to understand the extent of impact of the particular factors.

Now, after understanding the what are the factors going to impact my planning premises, then the extent of the planning premises, then comes a development of alternatives. In every say stages of the planning we have always you know trying to see that you know it is always against the best possible alternatives. You know planning under set of assumptions about the future events may not be perfect and an alternative plan for planning premises can be prepared as contingent premise.

It is very important that know you have multiple alternatives and among these alternatives you as such send try to identify which will be the best alternative to address the challenges, ok.

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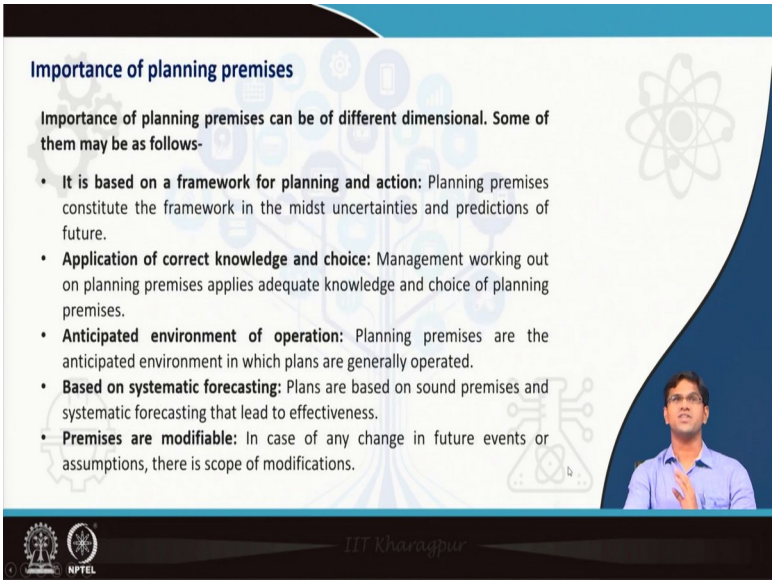

Now, we will see the importance of the planning premises, ok. So, you know it is based on a framework for planning and action. You know planning premises constitute the framework in a midst of the uncertainties and predictions of the future.

So, your planning premises actually provides a framework you know to you can operate in the you know uncertainty and the unpredictable future we are talking about. So, it will actually provide you the framework in which you can operate to you know manage the uncertainties and you know with the unpredictable futures, ok.

Now, second, application of correct knowledge and choice. You know the planning premises actually provides you know application of correct knowledge and choice. You know management working out on planning premise applies adequate knowledge and choice of planning in the premises. You are able to have adequate knowledge, so that they are able to make a better planning.

Then, it also allows an organization to anticipated environment of operations. Planning premises are the anticipated environment which plans are generally operated. You are always you know anticipates certain environment to happens you know with the

predictions you are going to make. So, planning premises will always anticipate certain environmental condition which plans are generally operated.

Then, now planning premises is based on systematic forecasting. Plans are based on sound premises and systematic forecasting that lead to effectiveness. You know you need to always follow a systematic way of you know forecasting, it cannot be you know where you know you abruptly chose some way or some techniques to forecast and then you make plan then that will be going to impact your organization plans.

Then, premises are all you know modifiable. In case of any changes in the future events or assumptions then there is a scope for modifications. And you know, as we said you know businesses are you know always have to you know keep it you know not rigid, flexible, so that you know the premises in the event planning premise whatever the factor which is going to impact my plans also to be flexible.

You know maybe I planned, I you know thought that you know only 3 factors going to impact my plans, now all of a sudden I will see that you know there are two more other factors or forces also you know impact my planning, then there should be a scope for modifications in the planning, right.

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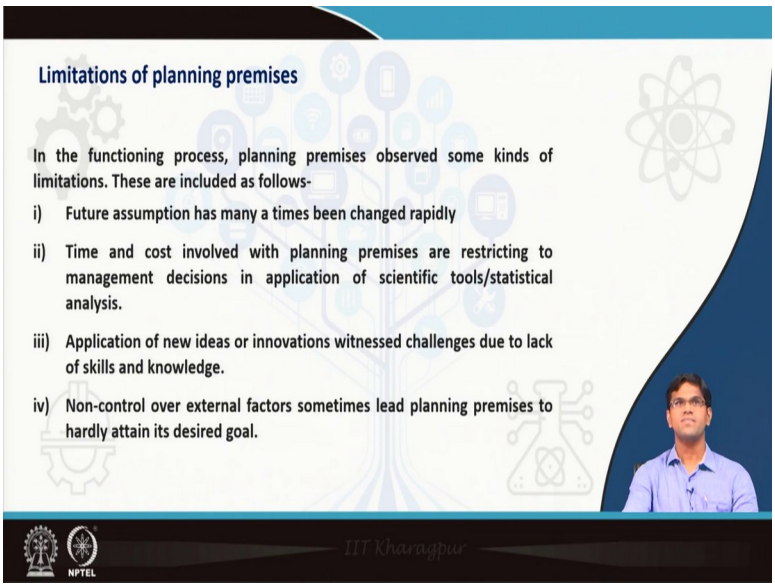

Yeah, now. Limitations of the planning premises. So, you know there are certain limitations on the planning you know premises, let us say you know future assumption

has many times been changed rapidly. Now, the rapidity of the business environment we operate that is actually you know become the major limitations on the planning premises.

Now, the future assumptions we are making, right, you know based on the past data or based on the information been collected and then the predictions we are made we made some assumptions and based on the assumptions ground we made a plan.

But the you know rapidity or the phase at which the changes are occurring in the business environment maybe you know which will impact the assumptions you know what you made may become wrong or may not even be relevant to that situations though that is a limitation. You know the assumption you are making based on the past data or the you know present information, may not be sufficient enough to predict the rapid changes in the future, ok.

And time and cost involved with the planning premises are restricting to management decision in application of scientific tools or statistical analysis. ok. Then, application of new ideas or innovations witnessed challenges due to lack of skills and knowledge. Now, we are always see that know there are application of new ideas or innovations are coming up where you know, but you know it is always become a challenges because you know not everybody have an adequate skills to you know use those new ideas and innovations you know when you are making the planning premises.

Then, there are always a non-controllable external factor, right. So, non-control over external factors sometimes lead to planning premises to hardly attain its desired goal because you know we are not every organization can control you know. As I said now fully controllable moderately controllable, partially controllable and then uncontrollable at all right. There are now factors where you as an organization you cannot even control, right.

Those factors you know it is very difficult you know if that act as a major factor in you know impacting your planning then you know the planning premises hardly able to make the desired goal you know. You cannot make the better ground to make your plans, because there are uncontrollable factor which is going to drive you know impact my organization, then you know the planning premises which I am making to make set my goals are you know plan my organizations future for next 1 year will be hampered,

because you know uncontrollable forces are acting on it, right. So, these are the certain limitations on the planning premises.

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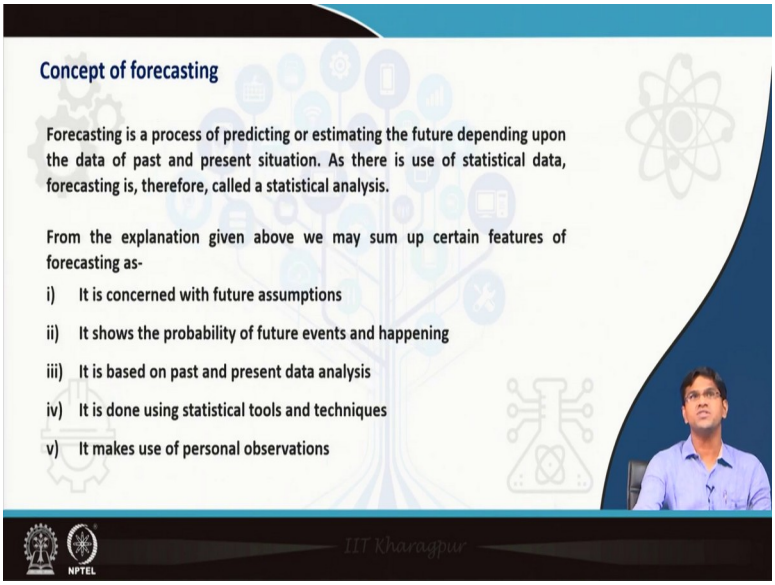

We will see the concept of forecasting you know. We are moving from the planning premises to forecasting. What is forecasting? Because now we are often using this term forecasting you know every organization always tries to see the forecasting. Now, the world is you know data driven world where you know every organization has the data science divisions where they are work on the data there are huge volume of data is available in every organization.

Now, organization are trying to see how we can argument and use this data for you know better decision making or refined decision making, so that now we are able to make a better decision for the future or we are able to make a better decision that is going to have a less error you know at least you know trying to predict the future to an extent possible, so that know we are able to you know go in a smooth faced manner.

Forecasting is a process of predicting or estimating the future depending on the data of past and present situation. Forecast is nothing, but an activity which is a process of predicting or trying to estimate the future you know depending on the past data whatever the data we have and the present situation, ok.

Now, we always you know exponential used as statistical data in you know forecasting therefore, it is called a statistical analysis. It is also called as statistical analysis, because you know we also talk about the probability of you know see the likelihood of occurring this event, likelihood of you know occurring you know occurring this particular situation.

Some, we will see some of the features of the forecasting you know. It is concerned with future assumptions. You know with forecasting always talks about the future assumptions, it shows the probability of future events to occur, right.

It always says you know there is a likely probability of therefore 0.4 is the probability rate. Let us you know say 40 percent of the time we are able to predict the future or 50 percent of the time it is likely to be the same outcome is going to come. So, now, probability of the future events is likely to predict the future event to occur, then it is based on the past and present data analysis, right.

So, what do we do? We try to see the you know past data and then we are trying to predict the you know future of the data. For example, let us say you know the consumption. So, we are let us take an example then you are a milk production company, ok. So, now, you wanted to see how much of the volume of the milk I need to produce for the next week. So, how do I make a decision?

Now, I have a previous a data which says you know what was the volume is been used in the previous months. I am either use with the previous data, I will use the some of the statistical tools and then probability techniques to forecast what will be the likely demand in the you know your milk consumption among the customers.

So, based on that you know modeling this probability, techniques using probability techniques and then statistical modeling, I will be predicting, I will be able to estimate the demand in the future then I will make my productions ready. So, that now I am able to supply keep the you know product ready for my consumers to consume, right.

Then, it is done using statistical tools and techniques as I said you know when you have the data and then you will use a you know statistical tools and techniques to you know apply these you know probability techniques and the you know statistical modeling. So, that know I am able to make a better estimation about their futures. You know there are

multiples methods in which you do. Right now, there are you know moving average method, you know there are time series analysis, exponential smoothening, there are multiple methods of in estimating the futures.

Now, regression, you know people also then we also do correlation you know relation between two variables, then multiple statistical tools or techniques are available to you know understand the you know future predictions.

It makes a you know use of personal observations also, right. When you are making a prediction, yes of course, you know data driven approach is important there is also qualitative perspective. You know for example, expert opinion is also important in you know going on the predicting the futures, you know what is the likely to happen, right.

For example, you know every after every budget you know decision budget sessions you know we always see, right you know we experts talk about the you know budget been proposed in the government, like you know what is going to have, which sector is going to flourish, which sector is going to have challenge or you know what is the opportunities that are available. So, you know there are expert personal observations also important, you know the qualitative perspective of the predictions, ok.

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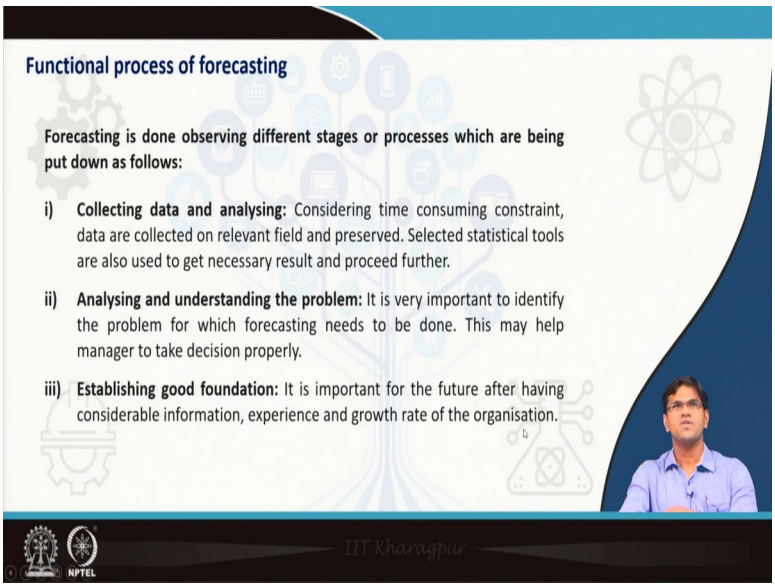

So, now we will see the functions of functional process of forecasting. You know collecting data and analyzing is the first step. You know when you are making a

forecasting; forecasting has to work on the data, right. So, you need to collect a data, you know considering the time consuming constraint data recollected on a relevant field and preserved you need to collect the right data and when you are identified the data then it becomes next step is you know chose the appropriate tools and techniques and you know use the data to make your predictions. So, you need to collect data and then you identify the right statistical tool and then analysis technique and to analyze what you are going to achieve what.

Then, analyzing and understanding the problem. It is very important to indentify the problem for which forecasting needs to be done. See, because now we see people are always have lot of data with them. It is not that you know you can just make anything with the data, right. You need to understand the problem first. You need to understand what the problem itself now for example, as a company I say and I wanted to introduce launch a new product.

Now, the problem is I need to do a market research to understand what will be the receptiveness in the customer, what is the need among the customers. So, you need to collect data, use the data and then do some statistical understanding and then see, what is the likelihood that you know when I launch a product what is the likelihood that may customers will buy the particular product. So, I need to understand the problem.

For example, let us say you know I have already had an existing product by I am seeing that know most of the time these products are not been sold, you know it is been always stocked up, but you know no people no taken. Then, that will be a problem.

Now, I need to go understand the problem, read what are the factors, why it is the reason, then use the data, collect the data and then do a study and then trying to understand, why it is not sending, why it is not moving. Then based on that know you make a decision, ok.

Then, it establishes a good foundation. It is important for the future after having a conserved information, experience and then growth rate of the organization, you know. So, it is important to you know establishing a good foundation, you know forecasting will always help you to make a better information, you know an organization can make a informed decisions about you know whatever their investments are or even the hiring decisions, how many people I am going to hire, how much of a money I am going to

invest, creative establish a new plant, producing a new product, whatever the decision. So, the forecasting will actually help, ok.

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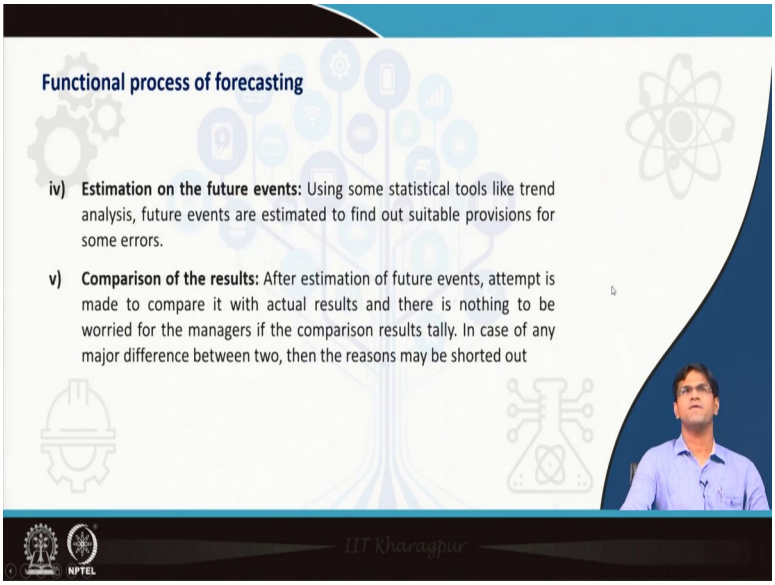

Now, then, estimation of the future events. Using some statistical tools like you know you know trend analysis or you know time series analysis or regression this is a one of the you know better you know prediction tool where with these you know statistical tools you will be able to estimate the future event to then you know on with this you know seeing that how much you can reduce the error, right. Also, some time you know weighted average is taken, you know moving average method is also one of the best ways to see what is likelihood of you know estimating my manpower.

For example, you know you may be using this you know moving average method, you can also see you know how much of manpower is required. For example, seeing the past data, now last 5 years how you know in each year how many number of employees are been worked, how many employees been newly hired, based on the past data I will be able to make some prediction, about what is the you know number of employees I am going to hire for the future right. You are able to make an estimation about the demand in the future.

Now, when you are making an estimation based on the past data it is also important that you know for example, let us say you know you have 1000 data this year, 1000 employees this year, [vocalized-noise] but you know in the few next year you are seen

that know one of the project is ending, then you know you are seeing that no more new projects are coming up. Then, what will happen? You know you need not to go on hiring, because you are going to close down one of the projects.

Then, there are there will be employees who are working on the project, some of wants to be reshuffled or maybe you know they become a surplus employee or you may have to take a decision about you know laying off certain number of people. So, that your organization do not you know invest or do not you know spend money on just to paying the surplus employees, right. So, estimating the future event and then making decision based on that.

Then, comparison of the result. After estimation of future events attempt is made to compare it with an actual result. For example, after every forecasting technique you do, then the then you always see what is actually happen. Yu have you have information about the forecasted estimations, then you will also go through the actuals. For example, let us say you know I estimated that know my demand for employee will be additional of 200 workforces for the current year. Now, I have that is my estimation, right in my forecast.

Then, at the end of this year I will see that know I have only added only 150 employees where my requirement. Now, the forecast was 200, but the actual result or actual demand is only 150. So, you will have to compare, what is the forecast and what is the difference between the forecast and the actual.

So, you need to see the difference between the forecast and then the actual, so that you will be able to make what is the better forecasting techniques. So, that now as an organization you can you know better make a choice of which forecasting tool or technique I should use. So, that you know it provides me as close possible estimates about the actual you know demands or actual futures are, right.

So, among the alternates you need to choose the best possible forecasting techniques or the tools, so that know as the organization I can use it is well enough to make my decisions for the future, ok.

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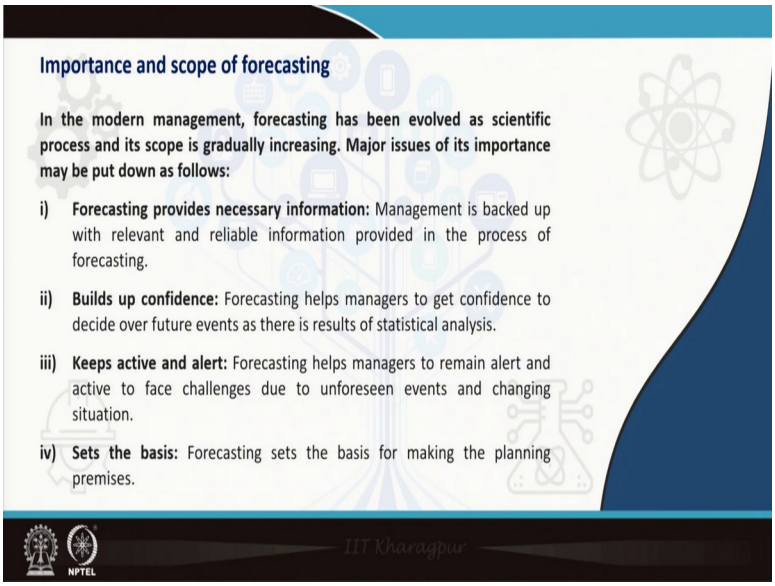

Now, we will see the importance and scope of forecasting. Forecasting provides necessary information. Now, management is always backed up with the relevant and reliable information provided in the process of forecasting.

So, you know forecasting always you know try to collect as you know large information as possible because you know you need to have more information more, the information better the prediction because you know less error and you know you will be able to make better you know prediction about the future or better estimation about the future.

But if you have an incomplete information or let us say the inadequate information the prediction whatever you are doing or the forecasting whatever you are doing it will become you know inadequate, where you know or at least stay the there will be a lot of errors involved.

Let us say you know forecasting says you know you need find a people, but with an inadequate information you estimate that you know your demand for the next 1 year is going to be 500 new employees, but the actual requirement is only 100. If you look at the difference between you know 500 and 100 is 400. So, that the huge difference between the forecast you made and then the actual research, right. So, that is you know forecasting will provide you know adequate information for the company, so that you make an informed decision or you know better decision making. And it also builds up the confidence.

So, forecasting actually helps the manager to get confidence to decide over the future because you know what you can do now when you are making a forecasting tools or techniques then you are estimating what is the likelihood of the future or what is my demand are.

For example, now most of the time organizations do these forecasting techniques in the inventory management, because you know holding the materials are you know having you know holding the materials not only the materials even the finished goods as an inventory it is a cast for the company.

So, every time company always tries to cut down the cost, right. You know any company wanted to save some money through cost reductions. So, they will always see that you know use some of the tools and techniques, so that now I can able to make a better predictions, estimations, how much of the inventory to you know hold is it you know it will be good decision to hold the inventories or is it better that I should you know keep very less amount of inventory as a materials. Because when I have to procure materials and then keep and hold it as an inventory there are huge cost you know fixed cost are associated with inventories.

So, when you are able to make a better decision then you will give lot of confidence for the managers to make a decision. You know they will say, based on the tools or the forecasting techniques we found you know it is better to hold this mount of inventories because we are seeing that this is going to be the demand in the market.

Based on the forecasting techniques you know we are able to companies are able to make a better decision that will builds the confidence of the manager because you know you are just you know making your gut feeling, it is about based on the data you know scientifically you are estimating what will be the a likely demand in the market. So, you are making the decisions. So, that will give lot of confidence.

Then, you know forecasting makes you active and alert. Forecasting always helps the managers to remind alert and active to face challenges due to unforeseen events, right. Whenever the you know use the forecasting tool it will always says you know there is an error always error, right, what is the you know, what is the potential differences between the population mean and the you know sample mean, right. So, there will be an error associated with it. We will also now some forecasting tool give you an estimation about

the error likelihood of the error also, then you know it will always make the managers to be you know be vigilant and careful that yes there can be another you know other factors can act upon the future, right.

Then, it forecasting also set the basis. When you are able to make some forecast it will it will tell you that, this is the number which you are forecasting, so based on that number you start work on it because you know it is always important that you know certain things to start planning. Unless otherwise if you do not know anything, let us say you know it is all invisible then you know how will you make your plans, you know there is no base to start with, right.

But the forecasting actually helps you to say, with the you know existing data and the present and the past data information you are able to at least make some estimation about the future. Based on that estimations you are able to plan, there is the base at which you know you will be able to start working on it, ok, yeah.

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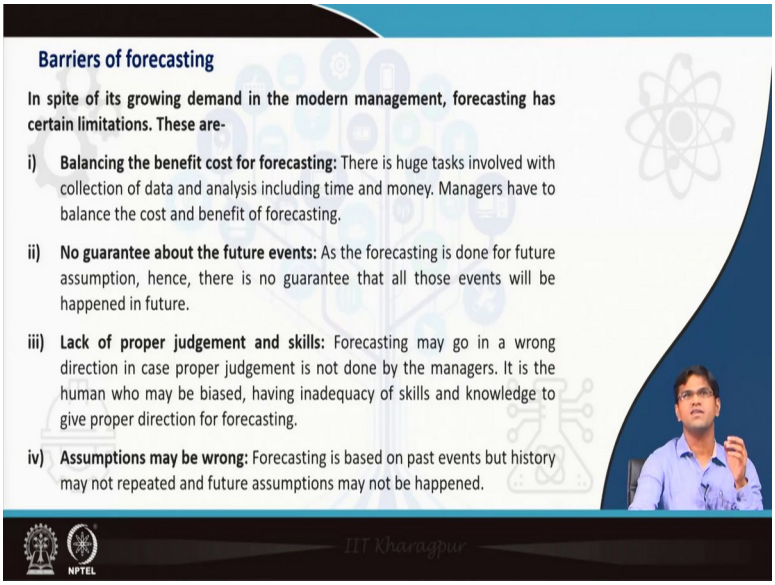

Then, barriers of forecasting. Sometimes you know balancing the benefit cost for forecasting, there is a huge task involved with collection of data and analysis including time and money, so manager have to balance the cost and benefit of forecasting. So, because now when you are making a when your data analysis and I will say hiring a data science scientist in your organizations and collecting the data because you know collection of data it itself is a you know cost involved.

So, then organization has to make a decision whether it is to invest so much of money in order to make a prediction. If my prediction is actually you know paying me back with a better you know benefits then it is ok, you know you have to do the cost benefit analysis to you know understand whether it is to make an investment or not on the forecasting techniques are collection of data.

Now, no guarantee about other future events. Though you know data analysis are the forecasting techniques are helping to estimate the future estimations, but there is always you know multiple factor which are not considered when we are making the estimations. So, the future is you know often it is you know unpredictable you know, uncertainties are always there.

Maybe you know you considered 4 to 5 factors when your estimating the future, but you know then you realize that you know there are two factor which are not considered or let us say you know there are two new factors are come into the picture then that is actually impacted the estimation. So, the guarantee of the future event is again you know uncertain, ok.

And lack of proper judgment and skills. So, forecasting may go in a wrong direction, in case of a proper judgment is not done by the manager. So, it is also important the knowledge by of the manager is also important, right. Now, for example, making decision about which variable to use in order to make a prediction, what are the factors I am going to consider to make estimation about my future.

If for example, if a manager is not having adequate knowledge about identifying the factors or the variables to you know use in my statistical modeling, then you know you cannot make a proper judgment. You know you missed out some of the important factors to make the estimations, then that decision whatever the decision you made based on that estimation is going to impact or it is going to cast your organization, ok.

Sometimes assumption maybe also wrong, ok. So, forecasting is always based on some assumptions, right. But we always see that know history may not repeat, right, it knows we estimate with that, ok this what the trend, then we estimated that you know we are going to now see the same trend again, but you to a surprise that you know something different was happened. It is not necessary that you know, for example take the mobile industry as such you know feature phones may not be relevant now, now you cannot say

thing that know it is going to be a cyclic event where you know people again come back to use a feature phones, but it is not possible.

So, now, the assumption what you are made is wrong. Let us say you know you imagine that now people will come and use the feature phones where example you use without the smart phones, right. So, those are the feature phones. So, it is not likely to happen and you know people may not go back. So, the assumption you made and worked on some estimations would have gone wrong. So, assumption may also go wrong. So, these are some of the barriers in the forecasting, ok.

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So, today we have discussed about the planning premises. And you know forecasting, what is forecasting and what are the advantages of the forecasting, some of the limitation and challenges of the forecasting.

But you know of course, the forecasting limitations have been discussed, but you know organization always try to make there you know estimation about the future because unless otherwise you do not know the basis then you cannot start your planning. So, organization use a better forecasting technique.

Now, they spend lot of their resources to collect data and they have the repository of the data, they hire data scientists and then they go for advanced statistical tools and techniques, and they make a better prediction. But with a caution that you know there is always you know factors which are not been considered in the statistical modeling for the estimations, and they always keep that factor also in consideration saying that, yes, there can be potential other factors can also contribute towards estimation. But you know organization wanted to always make an informed decision, or informed planning based on the forecasting techniques.

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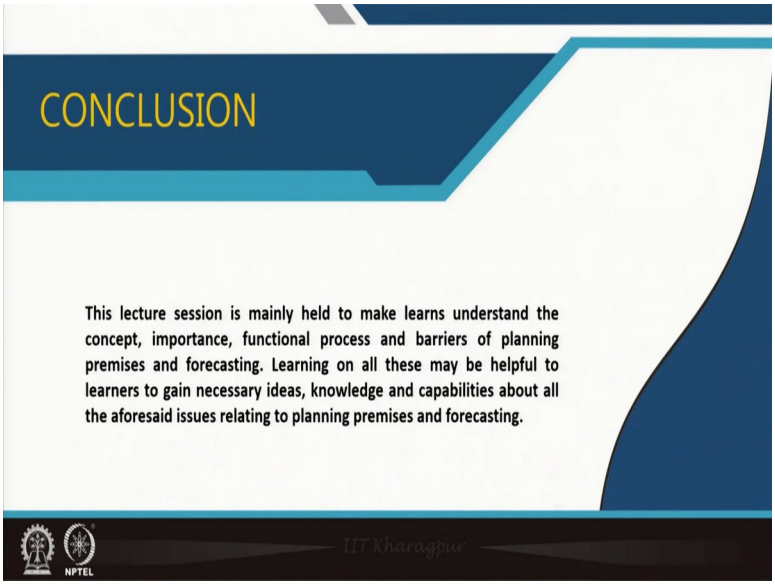

Thank you.