Entrepreneurship Essentials
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Module - 12
Lecture - 57
Start up Valuation – II

Welcome. So, we will continue from the previous session, we saw how a pre money, post money valuation is normally are normally calculated and then how equity shares, value of equity shares go up. And, then there are 2 ways of allocating equities, that is one from your share another from the company, how you create. Particularly more important part was during that discussion is that valuation and number of equity shares that you allocate it is not so, much linked.

What is linked is what percentage of equity that the investors is asking, that is more deterministic for defining deciding, how many equities you are going to allocate. So, that is very important. Of course, valuation, equity and then allocation and persona everything is interlinked. But, do not think that if the valuation is more you are going to give them more shares, that is not the case. I just wanted to clarify that part.

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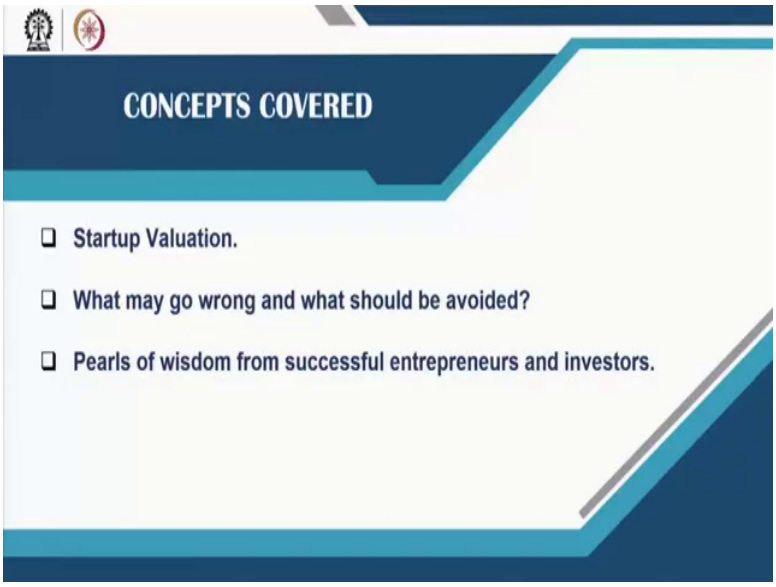

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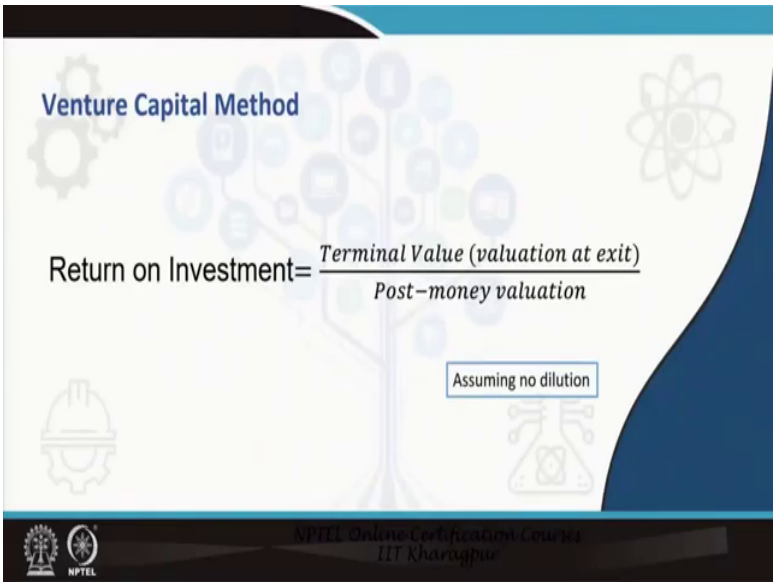

So, again the same topics. Now, there is something called venture capital method. Venture capital is normally used some established rule, not a particular method or something but, there is this is one of the methods that they use. They normally use this return on investment. Suppose, they will have some kind of a terminal value perception. What is terminal value? Terminal value is the value at which they will exit. Suppose, they have a perception that they will exit after 5 years, so, that is their investment horizon.

Now, after 5 at the very particular moment even before investing in your company, they will try to look at the 5 year scenario, at the means the 5th year scenario. That they are exiting from your company and what is the situation. Meaning, what is the profit that they can expect in the 5th year and then depending on the profit what is the market value multiple of profit say, 1 rupee of profit is going to be valued 1000 rupees. And, then suppose your company is going to make 10000 rupees of profit then, they will multiply that with 1000 because, that is the

market multiplier and estimate whatever is the value at which they can exit, that is called terminal value.

So, their return on investment is terminal value or their value, their portion of the value and no it is not their portion, it is total value of the company, divided by whatever today they are making post money valuation. So, today they think that they will be bringing some 1 million dollar or something on the table on the on the in the company.

So, that is if they bring 1 million dollar suppose, they are your company pre money value is 4 million. So, 4 plus 1 5 million dollar is the post money value. And, after 5 years they see a valuation of say 100 million dollar. So, 100 million divided by 5 million is equal to return on investment is 20 times 20 x means, 20 100 2000 percent forget about percent, it is 20 x. That is what is x in the realm of investment.

So, they will they will tell you our expectation is 20 x return in 5 years given the risk that your company is exposed to we expect or we will be feeling comfortable with a return on investment of 20 x. By these what they mean is, they mean 2 things. One is they will exit in 5 years that is a separate information within means at the end of 5 years, they are going to exit. And, they are expecting a value of 20 times their investment. Why I say their investment because, post money also includes their money.

Your money plus their money, your money meaning your valuation pre money valuation plus whatever money they bring is the post money value combine the together, sorry, your value, your company valuation before the investment and their money makes post money valuation. Now, post money value is going to inflate or increase 20 times that is what is the terminal value that is the whole meaning of this discussion.

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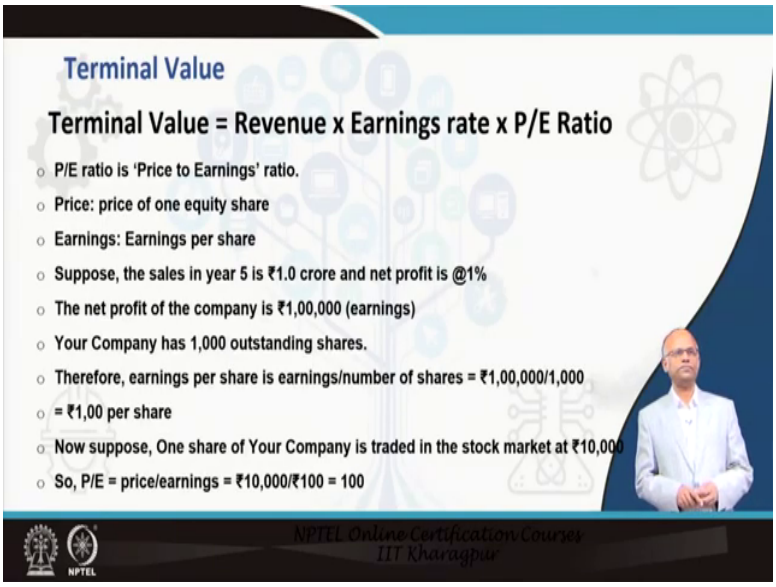

So, what is terminal value? Terminal value is nothing but, revenue in the 5th year. Then, whatever is the earning on the revenue, earning means profit, earning is a term that is used in US and perhaps Europe. In India, we use the term profit. So, revenue into profit percentage multiplied by price to earning ratio, I will give I have made an example for you to understand, what is P E ratio? Let us understand P E ratio.

P E ratio is price to earning ratio number 1; price is the price of 1 equity share in the market. Now, normally people refer to marketplace stock market but, if you are not thinking of market, you can even talk about price of 1 rupee of earning. Suppose, 1 rupee of earning is valued at 20 rupees; that means, price to earning ratio is 20, price is 20, earning is 1 rupee.

So, whether you talk in terms of per share, you talk in terms of 1 rupee profit or you talk in terms of the entire profit per say. Suppose, your profit is say 1 crore rupees and your P E ratio

is 20. So, you multiply that 1 crore with 20. So, value will be 20 crore. 1 crore rupee is the profit price to earning ratio is 20 meaning every rupee of earning is valued 20. So, 1 crore rupees of profit is valued at 20 crore.

So, your company value is 20 crore as simple as that. Understand clearly step by step, it is given a step by step, earning earnings are earning per share, it maybe 1 rupee also. Suppose, the sales in year 5 is 1 crore rupees, that is what the venture capital is talking to you or say angel is talking to you, that in the 5th year, I guess that your turnover will be 1 crore rupees. And, your net profit will be something like 1 percent only. So, the net profit of your company is going to be 1 percent of 1 crore, which is 1 lakh rupees, your company has 1000 outstanding shares.

So, divide that 100000 rupees of profit by the number of shares you get earning per share. So, your earning per share is 100000 divided by 1000 which is 100. So, your EPS or earning per share is 100. Now, suppose 1 share of your company is traded in a stock market in the 5th year at 10000 rupees. That means, price to earning ratio is 10000 rupees is the market price, 100 rupees is the earning per share divided by that you get P E ratio of 100 that is the P E ratio.

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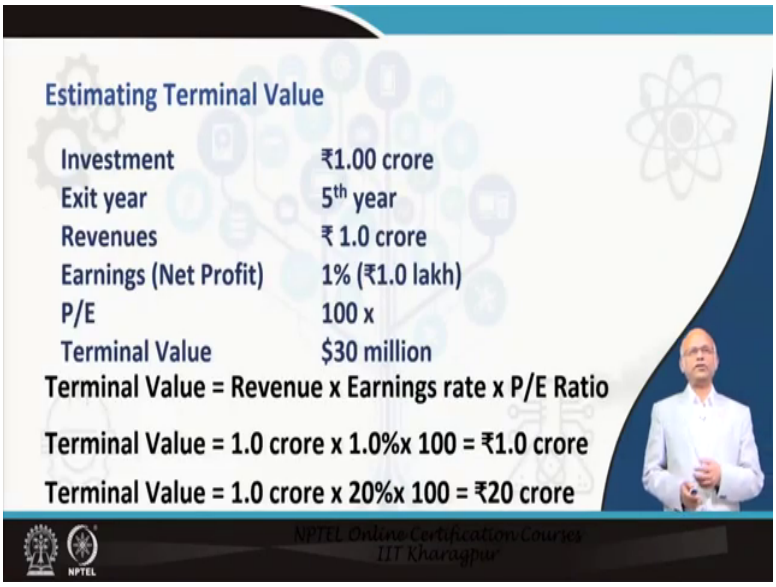

So, your investment suppose the company the angel invest 1 crore rupees, exit in the 5th year, revenue in the 5th year is 1 crore rupees, earnings is 1 percent, price to earning ratio is 100, terminal value in that sense will be 2 crore rupees. Forget about this line terminal value 30 million just forget about this for a while. Terminal value is equal to revenue multiplied by earnings rate into P E ratio, which in our case is 1 crore rupees is the revenue, 1 percent is the earning rate, 100 is the P E ratio that I showed, it becomes 1 crore rupees. Terminal value is equal to 1 crore rupees.

Suppose, this is another example sorry for not mentioning it here, terminal value in case the profit percentage is 20 percent. Then rather than 1 percent it becomes 20. So, your terminal value will be 20 crore. 1 crore rupees is the sales or revenue, 20 percent is the profit. So, 20

lakh is the profit in that case earning multiple price to earning multiple is 100. So, it becomes 20 crore rupees. So, exit value, value of the company at the time of exit is 20 crore.

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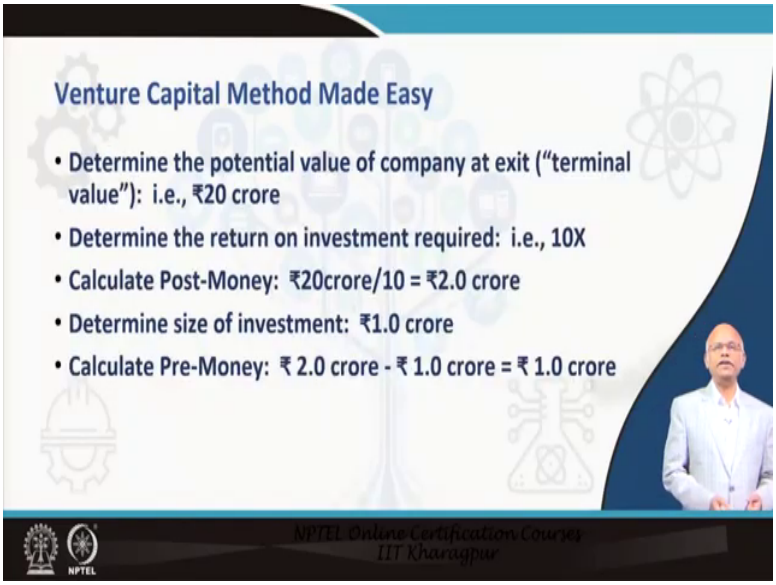

Now, they are investing how much? That they will estimate based on the 20 crore, they need 10X return, 10 times the return. Suppose, they are sitting there and they think that your company should give them a 10X return only then they will invest. So, they will divide your 20 crore of exit value by 10, you get 2 crore. That means, post money value of the company is 2 crore, if you remember this formula here. Terminal value is nothing but, post money value terminal sorry.

If you divide terminal value with your 10X to 20X or whatever, that becomes your post money value. So, in this case the post money value is equal to 20 crore divided by their return expectation that is 10X. So, you get 2 crore rupees of post money value. Now, they have

already determined that your pre money value is 1 crore and your post money value is 2 crore; that means, they are bringing in 1 crore rupee, they can bring in 1 crore.

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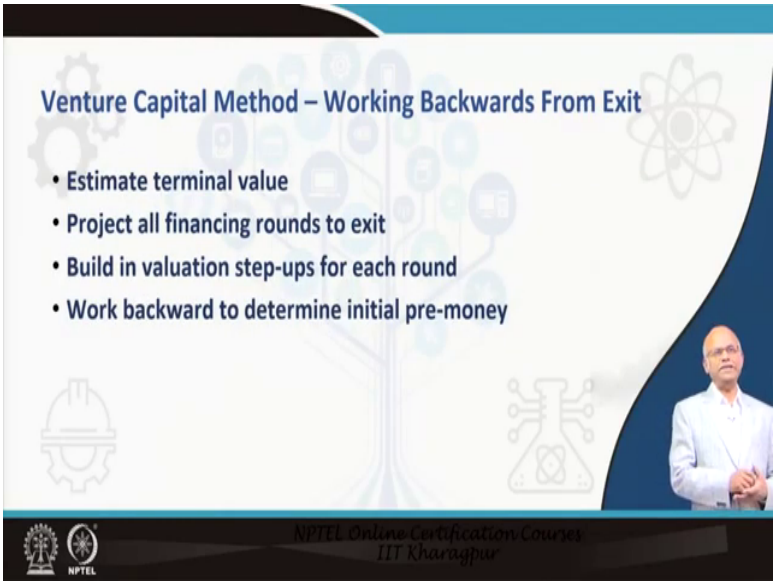

They are comfortable to bring in 1 crore, that is the money that they are going to invest. That is how they calculate, that is how the venture capital method is done.

So, if you work backward you estimate the terminal value after 5 years then; project all financing rounds to exit in between suppose, we are slightly moving forward. Suppose, in the 5th year before the 5 year period, in between say in the 3rd year or some time you raised another round of funding. So, there may be multiple round of funding. But, eventually when you exit you have to backtrack and estimate the present value only then you can estimate how much money the angel or the v c will bring in, should bring in to get some kind of folding that comes later. What backward to determine the initial pre money.

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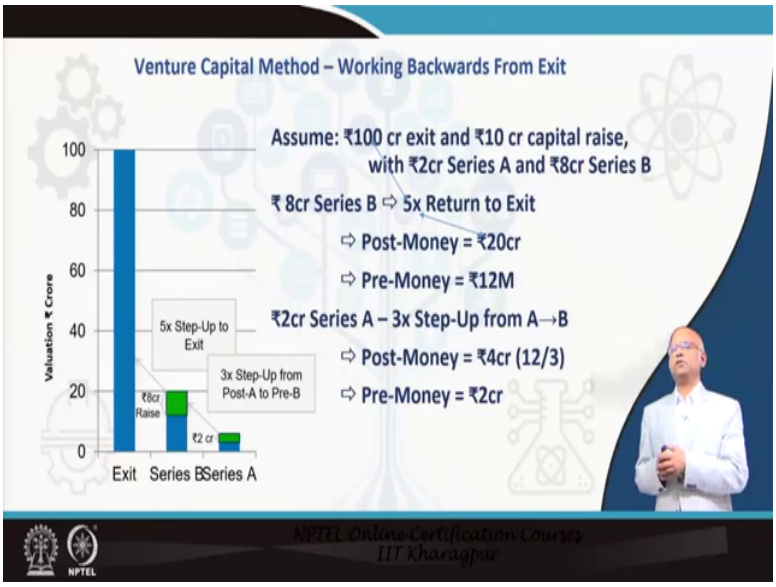

Now, let us see it with an example, slightly difficult part but, follow very carefully, it is not so difficult. Now, this is the venture capital method of estimating, how much money they should invest in your company. Assume that during exit your company valuation is 100 crore rupees, look at the blue long bar, that is 100 crore. That is the exit that is the 5th year. So, x axis actually increases not in decreases moving forward. Series A is the zeroth year, series B maybe 3rd year, exit is happening on the 4th year.

So, while y axis is 0, x axis is starts at 5, 5th year, 3rd year, zeroth year. Now, assume that you are exiting at a valuation of 100 crore and say you raised total capital of 10 crore. Total capital meaning from series A you have raised something like 2 crore, series B you have raised say 8 crore, Series A of 2 crore, series B of 8 crore. So, let us see how this is decided as to

what should be the valuation at series A or series B how these are decided, as per venture capital method.

So, we backtrack as I said. So, first we have to see series B. Now, your exit valuation is 100 crore. Suppose, your expectation is 5x return not 10x 20x, 5x return. So, how much is the pre post money value. Post money value as I said is exit money divided by how many x of return that you expect. So, 100 crore is the exit value and 5x is the return. So, divide 100 by 5, you get 20 crore, that is the post money value. If 20 crore is the post money value and you raised 8 crore of pre money funding.

So, what is the pre money value post money funding? What is the pre money value is 12 crore, it is not M actually I copied it from somewhere. So, that remained here. So, pre money value is 12 crore. 2 crore now we move forward in the next part. The place from where I have taken the slide is given in the reference the number 1 reference and I duly recognize their work and it is not just a blatant copy and claiming that it is mine. So, it is there very much in the reference part.

I have changed some data some units also for your understanding, I have added lot of lot of things in between. So, 2 crore now we have already come up that pre money valuation at the time of second round of value valuation, second round of fund raising was 12 million. So, we will start from there. Now, 12 million was the pre money value of the second round that we think now is the exit value. So, if 12 crore rupees is the exit value, what is the post money value of the first round? You remember that post money post money valuation is available by dividing the exit value divided by expected rate of return.

Now, here the pre money of the second round becomes the exit value because, that is another round of funding and suppose your first round of investor expect a 3x return. So, divide that 12 crore rupees divided by 3, you get 4 crore that is the post money valuation. Now, you deduct the pre you deduct the amount that you raise that is 2 crore from the post money valuation you get the pre money value that is 2 crore, as simple as that.

So, I hope that you understand I will just revisit quickly. So, for a complex situation where you have multiple rounds of funding, how you decide how you decide you are sitting in year 0 and you are looking at the future. So, how you decide that how much money you should demand or how much money the investor should give you, you are in year 0. Now, suppose you have all these panned out that you want to raise say 2 crore rupees today and then 8 crore rupees in the 3rd year and then in the 5th year you are going to give all of them an exit.

So, how much is the value that should be estimated by back calculating. So, you know that exit value should be 5 times the post money valuation of the second round or say the venture capital method of valuation in the 5th year is 100 crore. Because, they have estimated some kind of turnover in the 5th year and some profit percentage in the 5th year and some price to earning multiple in the 5th year, they have multiplied them and got a valuation of 100 crore that is what is this blue bar.

Now, you already know that they want in the exit they want 5x return. Divide 1000 divided by 5 you get 20 and that is the post money valuation in the second round. Deduct 8 crore rupees of funding that you have received from them, you get pre money value that is 12 crore. Now, you know 12 crore rupees is the pre money valuation in the second round that becomes the exit value for the first round.

Now, for the first round your investor wants a 3x return at the end of 3 years and the end of 3 years the valuation of the company exit valuation is 12 crore. So, 12 crore divided by 3x return makes 12 makes 4 crore rupees, 12 by 3. That is the post money valuation of today and pre money is 2 crore. So, post money is 4 crore minus 2 crore is 2 crore.

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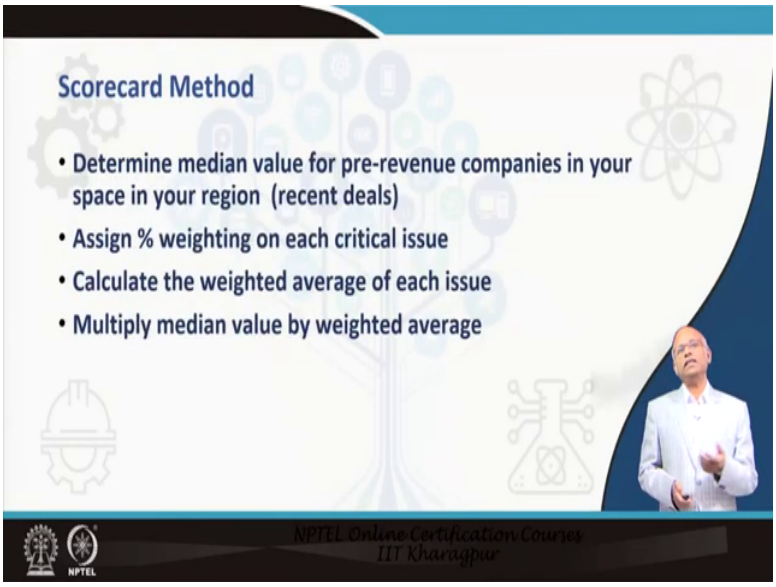

That is the whole story here, Scorecard method. I will explain with an example, you determine median value for pre revenue companies in your space.

Suppose, you are in say android application developer so, in android developer how things are selling, what are the valuation of different metrics of the company. So, you assign different weightages in different metrics management say I P say promoter, founder etcetera or level of development. All these you just keep on assigning value, calculate the weighted average of each issue and then multiply the median value of weighted average valuation to get your company valuation look at this.

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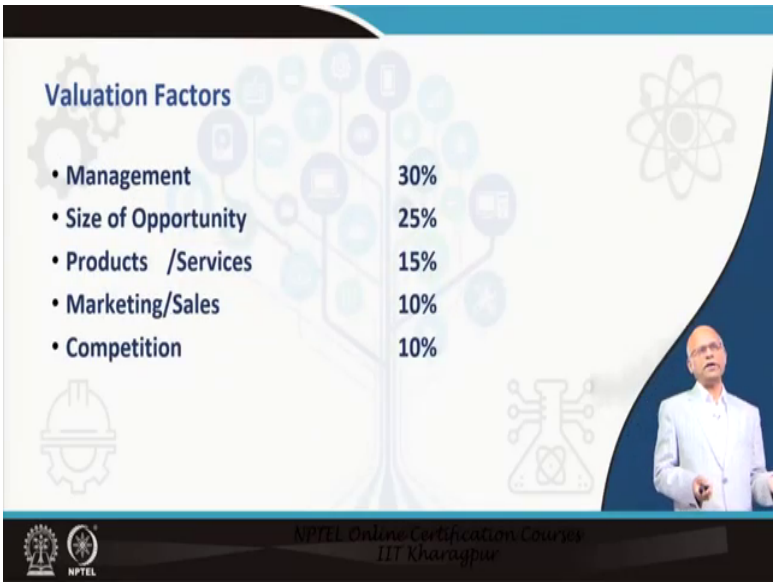

Suppose, management you think management is very important. So, management should get 30 percent of the valuation, size of opportunity get 25 percent weightage, product get 15 percent weightage, marketing get 10 percent weightage, competition get 10 percent.

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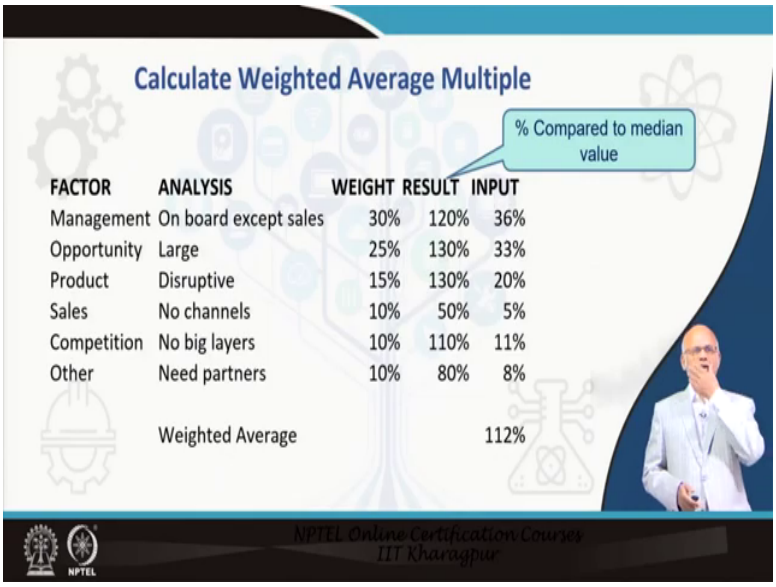

Now, you try to assess your own company suppose, your company management is kind of wonderful. So, you want to assess 30 percent premium over the median value. So, your company becomes say or say 20 percent premium not 30 20 percent premium.

So, you say management holds 30 percent weightage and you think that your management is 20 percent enjoy 20 percent premium over the median company. So, you want to assign 36 percent weightage on that. Similarly, opportunity you think your company enjoys 30 percent premium. So, it becomes 33 percent weightage likewise, the weightage are changes. So, weighted average becomes 100 and 12.

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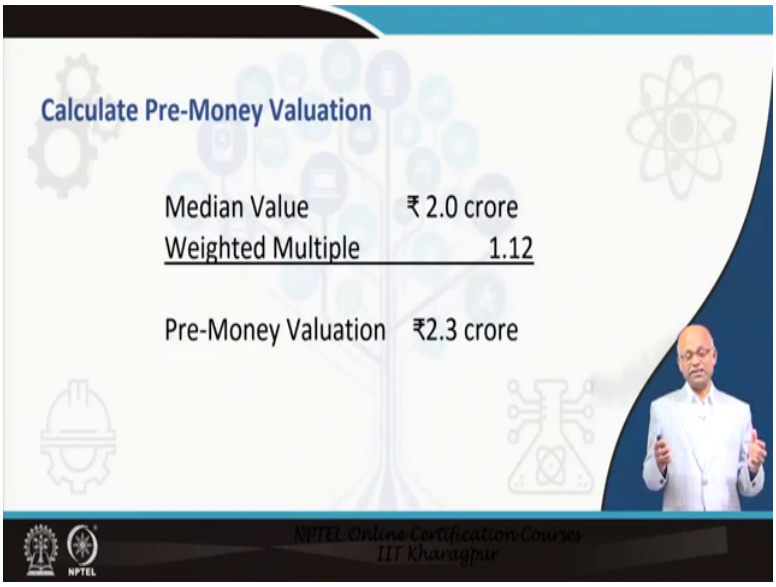

Now, you identify companies which are getting sold or value evaluated. Then, suppose the median value is 2 crore and you are weighted multiple is 1.12 you get 2.3 crore. So, multiplied by 2 crore with 1.12 you get 2.3 crore of valuation, that is the pre money valuation of your company. And, that is how this a Scorecard method is used to value company.

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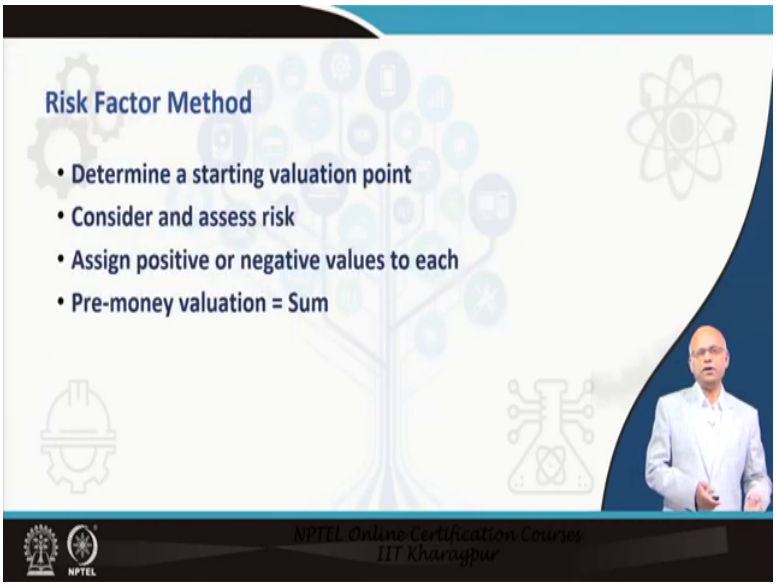

Now, there is something called Risk Factor method. Determine a starting valuation point consider and assess risk like every stage, you assign some risk point. Say idea stage, say prototype stage, validation stage, every stage the risk reduces, consider and assess the risk. Assign positive or negative values to each.

Like suppose, you have 10 companies. Say you take one company and you find that they are at idea stage. So, for technology you assign minus 2 to them or minus 3 to them. There is another company who has gone to market already. So, rather than assigning negative value to them, you assign positive 3, positive 2, positive 1 or something.

Likewise, you determine what should be the matrix based on which I will make the valuation. Then, depending on the status of the company you assign negative value or positive value,

negative high value or positive high value then, make a sum of them and then estimate risk type.

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These are these may be some of the risk parameters or metrics.

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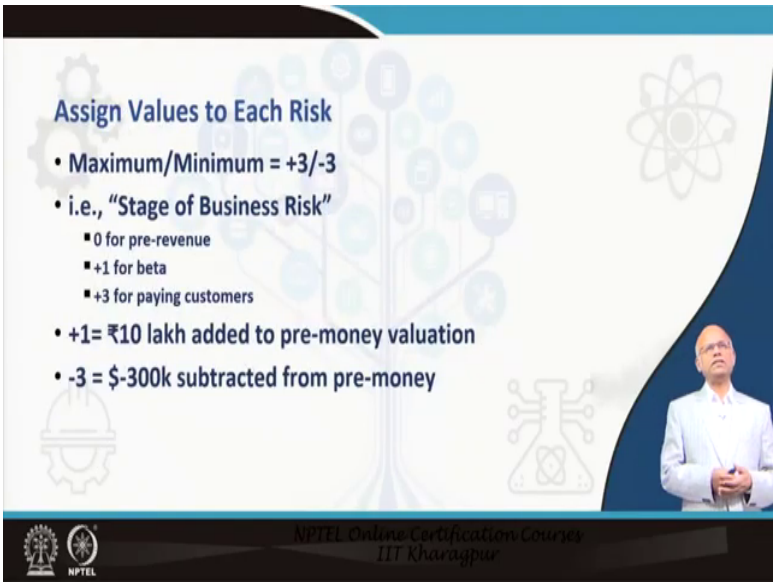

Now, here is an example. Suppose, you think that maximum I will assign 3, minimum I will assign minus 3.

So, 0 for pre revenue period, plus 1 for beta testing, plus 3 for paying customers suppose, they have acquired some customer. For each value you are going to assign say rupees 10 lakh added pre money valuation and for minus 3 you are assigning say 30 lakh rupees of minus valuation.

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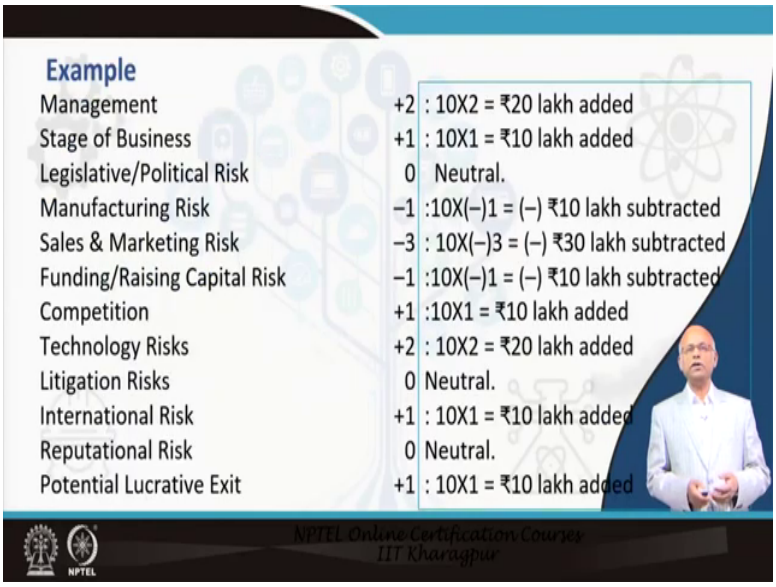

Now, look at this example say for a particular company you think that management is doing quite good, meaning they are balanced. There are some engineers and management graduate and they have experience credential. So, you assign plus 2.

So, every value will be multiplied by 10. So, 10 into 2 becomes 20 lakh suppose, instead of business is kind of type. So, you assign a plus 1, it becomes 10 lakh rupees you add to the pre money value, legislative, political risk, suppose it is neutral there is no political risk. So, do not assign any value.

Now, manufacturing risk you think that there is quite a lot of risk. So, you assign minus 1 so, that the pre money value will be reduced by minus 10 lakh. Similarly, sales and marketing risk

say minus 3. So, minus 3 into 10, 30 lakh rupees will be deducted from your pre money value likewise, all the parameters will be assigned values.

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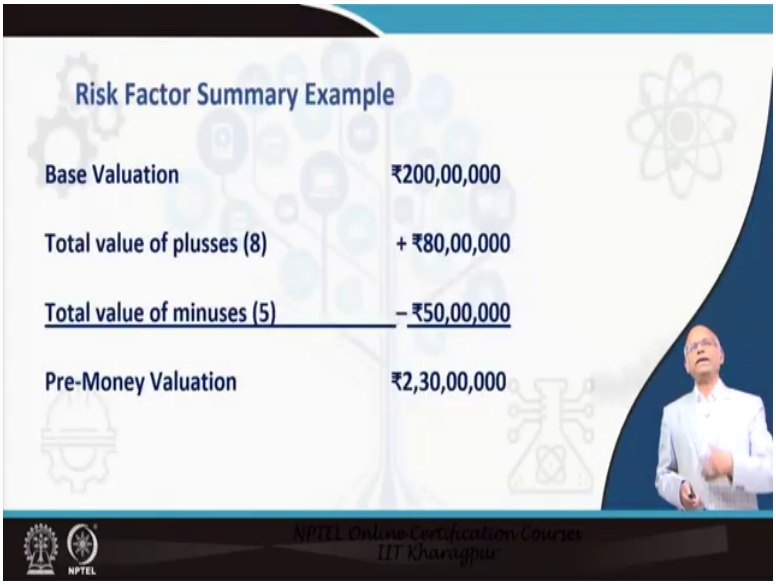

Then, you make a kind of a base value suppose, base value is say 200,00,000 rupees suppose, you think that base value is 200,00,000. Now, you add and subtract depending on whatever you want to add or subtract from the pre money value. So, you have added 80,00,000 rupees, you have subtracted 50,00,000, you got 2,30,00,000 rupees of pre money valuation.

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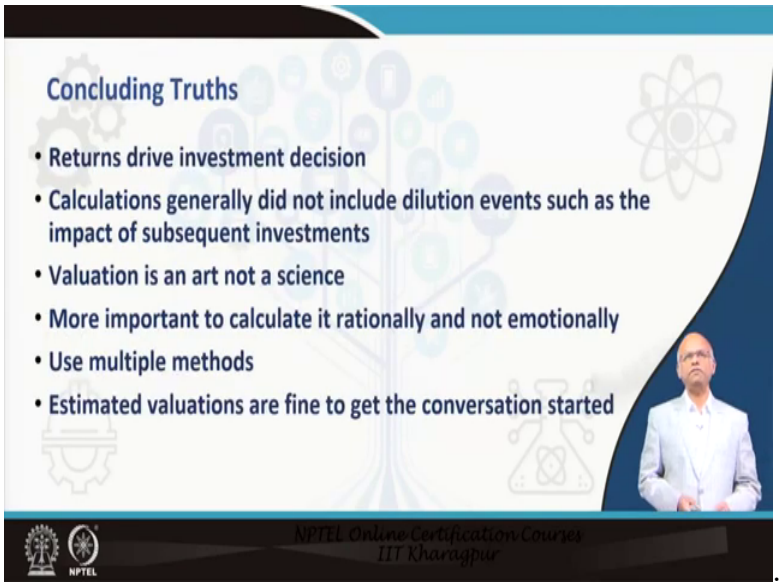

Now, return drive investment decisions. Calculation generally did not include dilution etcetera. Then, like say at every stage there might be dilution also. Valuation is an art not a science, more important to calculate it rationally and not emotionally, use multiple methods, estimate valuations. It means whenever conversation gets started.

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Now, here is the reference of Stephen Thau my whole presentation is kind of inspired by whatever he said, you can see the Google search his presentation and you can see the presentation but, you will you will realize that my presentation is far different.

There may be some 1 2 3 locations where, I have taken some examples.

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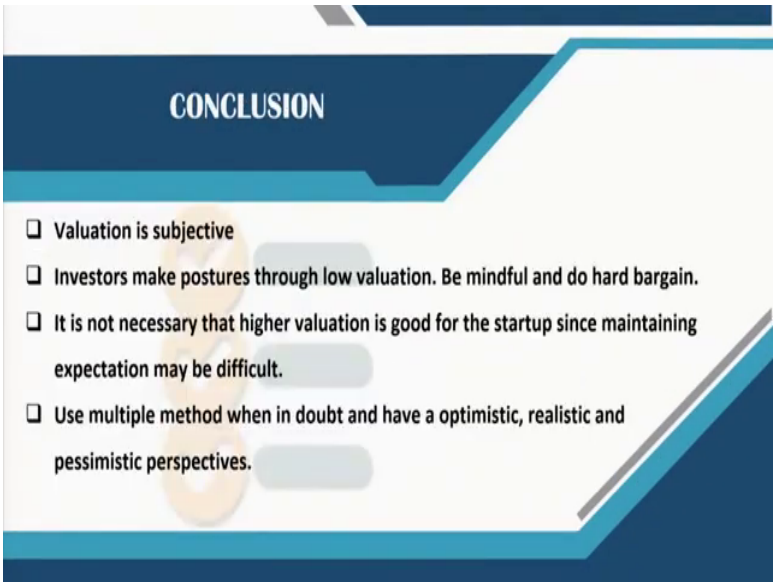

But, otherwise I have brought in a lot of value to this domain, concluding remarks. Valuation is subjective, investors make postures like they will see your company has so much of loss. There is no value at all but, I will be kind of kind to give some value be mindful about that hard bargain. But, remember it is not necessary that high valuation is going to give you some kind of you know winning proposition.

In fact, many companies died because, they had too high valuation, do not go for too high valuation. Use multiple methods, meaning one method may not give you some kind of a wonderful idea or something. So, use many methods and take a pessimistic realistic and optimistic view. And, eventually make some kind of an average that let us settle with this and if the valuation is like that, you should be happy with that. Hope you understand something from this.

Thank you very much.