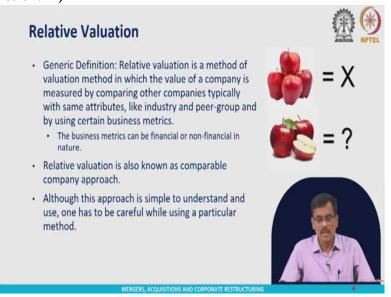
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Lecture - 21 Valuation in M&A: Relative Valuation - 1

Hello friends, welcome to another session on mergers acquisition corporate restructuring we have covered a couple of sessions. And valuation and the last session we talked about valuation using assets relation asset based approachable valuation in this session we will talk about relative valuation. So the concept that we have in this case is relative valuation we will talk about also known as, comparable company approach.

And then we will talk about something called trading and transaction multiple, trading versus transaction multiples. And these are the keywords select keywords here valuation, enterprise value, valuation multiples, price to earning multiple, price to book multiple or market to book multiple, EBITDA multiple. Those things will be discussed besides some more concepts also will be, covering in this particular session.

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Now coming to the generic definition of relative valuation is that here we compare the value of different other comparable companies with the company that you want to target. So if there is a company X, 2 values for data acquisition purpose or even the trading purpose also. Then in that case we have to look at how other companies in this similar sector, similar types, similar type of profile are traded or are valued in the market. So if there is something a reference point for us so if that is X is this much then what is Y?

Because X and Y may be comparable so that is the fundamental thing so and the comparison

can be based on financial matrix or based on non-financial matrix also it is not necessary that

is always based on financial matrix. So there can be, comparative valuation or comparable

company approach using non-financial matrix of valuation which, we will be discussing in

the subsequent slides and sessions for that matter.

And the relative valuation method is also known as comparable company approach so you are

comparing with another company or group of companies. And trying to find the value of the

company it is simple to understand and use but, one has to be careful while using it. So if you

look at our picture here we have got a bunch of apples which is X value now we have another

set of apples that which is Y what is the value that is the thing.

Because what we are doing here if you look at this particular picture we are comparing apple

with apple we are not comparing apples with oranges. But the same time the apples that we

are going, to value and the apple that to where you have the value may not be the same type

there could be variety of apples for that matter. So we have a reference point for a particular

type of apple but for our target may be different type of apple.

So accordingly we may have to make some adjustments because all the apples may not be

one and same as such. But this because you may not be able to get a, reference point for the

same type of apple in the market you may get a reference point of different types of apple in

the market. So first of all we are comparing apples for apples secondly we may not be getting

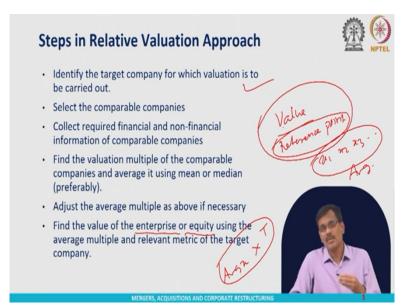
the exactly same type of apple in the market where it is valuation is there are that is being

traded somewhere.

So in that case we have to adjust for the type of apple that we are looking to, value or target

for that matter that is what this example apple example talks about.

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And coming to the methods that step that we have in the relative valuation method that first thing is that we have to find out which company you are going to target what is the target for us so company X or company Y for that matter. So that is the first step in fact for valuation that the first step which company we are going to value or which business we are going to value then we have to select the comparable companies.

So, which companies are actually comparable for that matter and comparable company selection is the most challenging task. In this particular approach just an example if you look at let us say automobile companies we are looking for valuing automobile company producing a particular type of vehicle maybe a particular type of car. So we will look at other automobile companies which are actually traded or valuations available as a reference point now my company which is not listed but the target company is not listed.

So, we like to value that and let us say the target company is a company which is manufacturing only passenger vehicles and in the market. Let us say in India we have a comparable company comparable community terms of the automobile sector called Tata motors. But Tata motors has both passenger vehicle as well as commercial vehicle whereas if you look another automobile company in this country Maruti Suzuki.

So, Maruti Suzuki has more or less passenger vehicles they do not have any commercial vehicle like trucks, buses and all. So, in that case what to company, how do you choose that because at the same time there may be very few players in that particular segment there is one

more company Ashok Leyland. Ashok Leyland is more into commercial vehicles they do not have as of now passenger vehicles for that matter as of that.

So, which companies to consider at the same time we have to value a company in the automobile sector and the automobile sector may have very, limited number of players. And the product portfolio of those players may not be the same as the product portfolio of your target company. So, in this case we have to get the reference point from the automobile companies then do certain adjustments to use that valuation multiple for our target company.

So that is an example of how it is becoming how challenging is it because it is not, possible to get a clone or exactly same company like a target company in the market. So that you can value so easily that is very difficult company's nature, company's age, company's size, company's stage of growth, company's product portfolio, company's processes technologies can differ substantially. But they may belong to a particular sector so you narrow down the sector find out certain companies.

And if, necessary do some adjustment to the valuation after you got the reference point so that is what one has to be sensitive about. Then once we have the comparable companies then we have to find out the required financial and non-financial information about the companies which are very much important from the valuation point of view. Or the value driver's point of view it could be profit, assets, it could be a date, it could be revenue.

Or it could be non-financial things whatever technology, processes, product, market those things have to be considered. Then we go to then try to make whether you can get a comparable company or not? A set of comparable company now once we have the comparable company set then we have to get the valuation multiple of the comparable companies. And whatever comparable company is multiple that you got then we have to make an average of that.

And then that others can be used to value the target so that is the process so find out the comparable companies find the valuation multiple and whatever valuation multiple. And valuation multiple could be something like this so value is in the numerator and the reference point it could be earnings, it could be non-finance material, like there is a capacity that is in the denominator one we have this multiple for company x 1, x 2, x 3 like that.

Then what we do we take the average of this x 1 to x 3 whatever average x we got we have for target for that particular company parameter is there and then you multiply. And find the value of the target for that matter so that is a generic approach to find out how, valuation of company can be done with the help of comparable company approach. And the valuation can be done for enterprise as together or equity separately depending on the reference point.

If the reference point is related to equity only then you will get the value of equity if the reference point is it is related with enterprise of the company. As a whole then we will be able to get the enterprise value and from enterprise value we can find out the equity value. But at the end of the day when you are looking at target we have 2 value the ownership so that you can transfer cash or something in lieu of shares they surrender.

So that is finally we have to go to find out the value of equity even if we have to first do valuation enterprise. But then we may have to do the value of equity so that the ownership can be transferred in exchange of certain things. So for that matter value of equity is very much necessary in the context of M and A for that matter.

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And coming to that comparable companies yes we discusses, the example like automobile sector like automobile Tata motors and Ashok Leyland and Maruti. How these 3 companies are in 2 multi in the automobile, sector but they have different segments of products or customer segments or products for that matter. So when you are looking at the comparable companies one has to keep a watch and all those things

But this particular list of either talked about is not existing list one you have to have lot of filters for that matter certain suggested filters have been provided in this particular slide. The first thing is that what the industry and or the sector and soft sector in a bigger industry then certain sectors are then the sub sector could be there. For example if it is a fast moving consumer goods product.

So fast moving consumer goods products could be related to personal care beauty for that matter a fast moving conserved products could be related to grocery related items for that matter. So, there may be company in a particular segment maybe in personal care, health new and let us see beauty for that matter then another company which could be only into consumable products like grocery items something like that.

So in that case that is sub sector and there could be a company which is into multiple segments for that matter in that case you have to look at certain companies fitting that, particular criteria. So look at that what industrial sector that sub sector that target belongs to then accordingly we want one has to look for a comparable company then what are the products services or offerings is not necessary, only for manufacturing company this particular method can be also useful for service sector.

The service sector like IT's may not have different type of service, offerings and service offerings can vary from a company to company. So you have to look for a closer company who is offers the type of services is offered by your target company. So or to look at those companies then but look at also the market for products for example in certain companies the market could be pan country.

Or let us say in India pan India in certain countries market could be international, whereas your target may not be an international company. It may be pan India it may be related to particular region so in that case comparing a pan India company with a regional vision based original company is not is going to be difficult. But at the same time if you do not have sufficient number of reference companies for regional players in that case you have to go for pan India companies.

All India presence; company is all India presence then take, that as a reference point and do certain adjustments when you value a company which is the regional player we cannot say that. Because the regional player companies reference are not there we cannot value it so you have to go to closure reference point for that matter. So the markets can be different for the target and for the company, companies but we have to do some adjustments.

And then use the valuation multiple. Size of the company also, another important thing big size company have their inherent advantages. Because they have economies of scale and scope, small size companies they have got certain advantage as well as limited small size company could be easier to manage. But they may not have that many offerings, that many products, that much scope assess so, we have to look for suppose looking when you are looking for a comparable company.

So we should try to find out similar size companies like the target assets if not then accordingly you do certain adjustments later. So that is the importance that you are attaching here. Age and stage of growth there could be a target could be a new company new age company. Recently set up whereas a comparable company could be quite old they might have gone to a lot of growth stages.

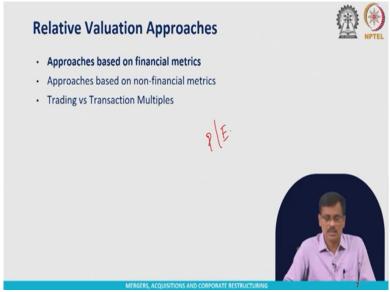
So in that case it is going to be difficult so we have to look at that what is the stage of growth of this target company. Accordingly we find another comparable company if you do not get again as we discussed earlier one can always do certain adjustments to the valuation and that what, happens relative valuation becomes little subjective in nature. So which particular multiple you will going to use that is one subjectivity another what comparable company you are going to find that is all subjective.

When there is one has to be very careful using this particular approach. Then the stage of technology in certain companies could have lot of automation certain companies may have less, automation or a combination automation. And manual processes then getting the comparing those companies going to be difficult so one has to be sensitive about it then another important point is that profitability we may have to look for.

We may have to value a company which is not meeting profit or it is just started making small profit for that matter. Whereas we have several other companies in that same interceptor reference point we are actually profitable they are making profit our target may be a loss making company or very less company which has just started making profit. So then also have to look at so in that case again a profitable company's valuation reference may not be directly used for a company with a target which is not making profit for that matter.

So we have to be careful in that so if you get is a profitable target and we get profitable companies as comparable company nothing like it. Otherwise you have to make certain adjustments to the valuation may be upward may be downward depending on the nature of the adjustment.

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Then when you look at the valuation of using comparable company relative valuation for that matter the popular method that we have come across. Some of you might have already come across in may be equity analysis or equity valuation or evaluation of shares etcetera. So look at that financial matrix like for an example there is a very we will be discussing subsequent slide. But we are very much familiar with one a particular ratio in the market called price P / E ratio.

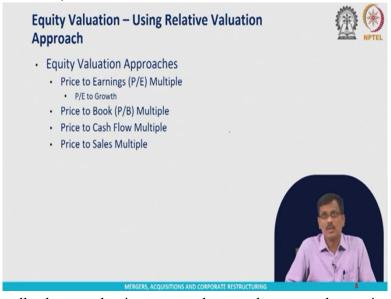
Price to earnings ratio that is called price of the share into divided by earnings per share so that is earnings per share is a financial matrix so they that is called based on the finance. So what you are expecting that the price is driven by the earnings per share. The earnings per share is high price is expect to be high but it is not necessary that one has to use only financial matrix one may use non-financial matrix as the value driver.

So for example technology companies they may, more valuable because of type of technology they have or technology they have developed IP based companies may be more valuable. Because they have got lot of patents or they have got good number of scientists for that matter. So that way it is not necessary that our valuation multiple should be only with reference to financial matrix relative valuation can also be done with reference to non-financial.

And matrix then another thing that one has to be careful in valuation is that trading versus transaction multiple Sony is a trading multiple trading multiple means multiple available in the share market or stock market for that matter. So it is traded this things are traded as such based on that the multiple can be found out when you talk about transaction multiple layer we are, talking about the M and A transaction.

So we can get the multiples based on the recent mergers and acquisition transactions so in that case we can take those multiples to value your target. So when you go for trading multiple, trading multiple will help us give the value for a share if it is going to traded in the normal market may not be for the amount of purpose for that matter.

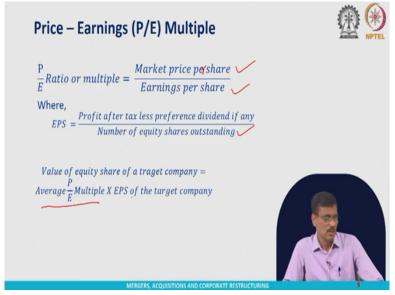
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Then when you talk about, valuation approaches we have got the equity valuation using relative evaluation we can also have enterprise valuation for that matter. So when you look at the equity valuation there are multiple methods that has provided that is one of the very popular method is called price to earnings multiple or P / E multiple and the P / E multiple also one can adjust for the growth.

We will discuss about is, called PGE ratio for that matter then you have price to book value multiple, then price to cash flow multiple. And price to sales multiple there would be other methods of valuation also so we will go one by one define methods of valuation.

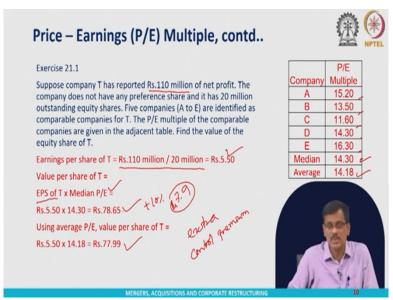
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So when you look at price running ratio multiple P ratio or P multiple what you look at we look at the market price for the share and the value earnings per, share. So here market price per share is profit after tax less preference event the company has preference dividend preference share capital. Then we remove the preference dividend to find out the profit after tax available for equity shareholders and divide that by number of equity shares outstanding.

So that gives the earnings per share and once you have the average P multiple the best and comparable, companies that average P multiple can be multiplied with the earning per share of the target company. And that can give us the value per share that is the generic or general approach when you are using the P ratio or P multiple for valuing a company.

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So we can have a small example here let us say we have one company which has reported 110 million rupees of net profit company does not have any, preference share capital. So and it has got 20 million equity shares and there are 5 companies comparable companies are identified. And they are P multiples are given here the P multiple of the comparable companies using that we find the value of the share equity.

So if you look at this valuation and this P multiple then we got the average and one can emphasize here is that when you are looking at the average you to average to be used. If sufficient data are available it is better to take the median of the data because median takes care of statistically median takes care of extreme values. So, very lower very high values are actually automatically neutralized in the median method.

But for that matter one must have sufficient number of data as per statistics principles otherwise one can make, find out simple average and use that. So in these 5 companies that we have the or median multiple comes to 14.3 whereas average simple average comes to 14.18. So first what you do we find out the earnings per share of the target company that comes to 5 rupees 50 paisa.

So target companies share valuation will be now EPS of the target company into median price earning ratio so that gives us by using median, P ratio we get 78.65 rupees. But by using average P ratio of 77.99 so one must not bother about it which one to be used if median is available who preferable you should use median. A median is not available we can always use average that is the question that I can focus here.

So this is the way but one must be careful here this particular multiple is based on trading in

the market so, in that case this is something like day to day trading. I am buying 1 share 2

share something like that this digital market that is the thing. But when you look for mergers

acquisition we do not buy other acquisition we do not buy 1 or 2 shares or 1, 2 percent share

here we buy a controlling stack maybe or maybe full control for that 100% for that matter.

And when you acquire a controlling stack, the controlling stack gives us certain because you

can take decisions so in that case this 77.99 or 78 pound rupees point 65 rupees may not be

the price that you will like to pay. We may have to pay something extra to that and that

something extra in the M and A market is M and A valuation known as control premium that

means you have to pay a premium for extra something for the because you are going to have

a control over the company.

So we can get the value with reference to trading multiple like here you have got but for the

merger's accusation purpose valuation we must attach and control premium the value. So

control premium can be very subjective it depends on what type of benefits that regarding

accrue to the company. So let us say for example 10 percent is the control premium that the

company is willing to pay to buy this toward the target.

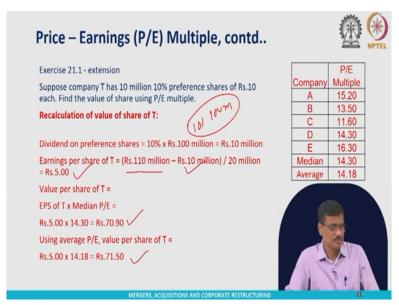
And if you got 78.65 rupees the value per share we can have 10% extra on that so that comes

that means we can add another 7.86 or 7 approximately 7 rupees 90 paisa extra to that. So 78

point 65 + 7.9 rupees will be the value per share from the M and A point of view. So that

extra money is for the control premium.

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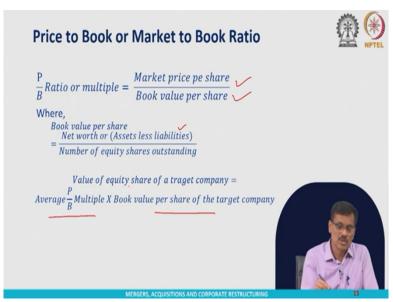


And in the previous exercise we assume that the company does not have any preference dividend preference share capital. So there is no preference dividend assuming that the company has got 10 million 10 percent preference shares rupees 10 is in that case we have to remove the preference dividend. So we got 110 million profit as earlier this one and, so 110 billion from there we have 10 rupees share into 10 million numbers.

So that comes to 100 million equity on that 10 percent goes as preference even that comes to 10 million of different dividends we remove that a number of shares equities has remained same 20 million. So that way the value comes to 5 rupees and so the value as per median P 70 rupees 90 paisa and for the average period price comes, 71.5 rupees and if there is a control premium available applicable.

One can attach add a control premium and then find out the value for the purpose of mergers and acquisition.

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But having said that price running multiple there are certain concerns about the price P multiple its P multiple is no doubt is very popular. One of the beauty of the P multiple is that one can find out whether a, particular share is undervalued or overvalued for a listed company. So for example if the average P multiple in the sector is let us say 14 times whereas a company that you are looking at that which is listed in the market that P ratio for that particular.

Let us say target is 12 times in that case we can say that the company that is target company is undervalued because market values the companies, in the similar sector 14 times. But this company is valuable 12 times so that means there is a growth there is a prospect that is company can be valued more as that is the beauty. So similarly if another company is got 16 times P ratio in that case that company can be taken as a overvalue.

So P multiple of a company more than the average then it is called overvalued the less than average industry average is called a undervalued company. But P multiple has got its own limitation if first of all it can be used for a company which is making profit, second that means it can be used for company making losses. And P multiple does not consider the growth it is possible that company have very less profit.

But very huge growth opportunities in that case the company have a very huge price earning, multiple so in that case the company's P multiple has to moderate it for PE growth assets. So we want to use PE ratio so for example if the company is P multiple is let us say 20 and the growth of the particular company in the earnings is let us say 5%. So P is a multiple will be

20 / 5 comes to 4 so one can use P is a ratio for high growth companies instead of P ratio for,

that matter the value.

And but another point is that profit can be misleading profit can be manipulated because

profit is lost subject to lot of accounting assumptions adjustments. So those things that is a

problem area so assuming profit is fairly calculated then the method has the method does not

have this particle problem. Another thing is that price earning ratio does not come the, entire

company it consists equity.

But the value of the company could be driven by the overall assets companies not only equity

companies finance by data and equity. So P ratio does not consider the date component the

company may have a good P ratio but very high date. So it is possible that company may be

having bankruptcy problem in future so that case P ratio is can be misleading so that is one,

of the limitation of P ratio

Because it does not consider the entire company it consider on the equity portion of the

company that is another. And it is not necessary the company making good profit is always

good company may have good profit but may not have good cash flow because people look at

the cash flow for that matter. So that way P ratio has these limitations other multiple that we

have, another multiple that you have popular is called price to book ratio multiple or a market

price to book value per share.

In this we have the net worth of the company which is nothing but assets less liabilities they

have had been number of equities shares. So in that way value of equity share could be

average price to book multiple into book value per share. So, another method of valuation is

price to, book race your market to book ratio where we find the price to book ratio using

multi multiple.

There one wants to find out the market price per divided book value per share and book value

nothing but the net worth divided by number of equity shares network is nothing but assets of

the company minus liabilities of the company. And similarly like we got average price

running ratio. So I can find, out the average price to book multiple and multiply the book

value of the share of the target company and find the value of the company value of the share.

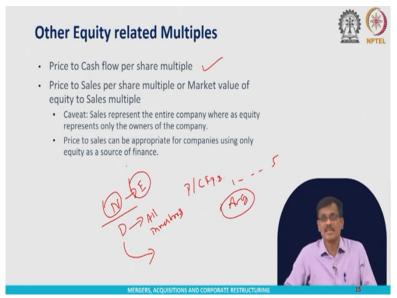
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Price to Book or Market	t to Book Ratio, contd	④
Exercise 21.2	to book name, contain	NPTI
Company	P/B Multiple	
Á	2.50	
В	3.20	
С	1.80	
D	2.70	
E	2.20	
Average	2.48	
Median	2.50	
Net worth (Rs. Million)	680.00	
Number of equity shares (million)	17.00	
Book value per share	₹ 40.00 ✓ 、	90
Price using median P/B	₹ 100.00	125
Price using mean P/B	₹ (99.20)	
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So for example in this case we have got five different companies A to E where their price to broke multiples are given the average is 2.48 and median 2.50. So number of the network the company is 680 the company has 17 million, shares and so value per book value per share this company is 660 / 17 comes to 40 rupees. So 40 rupees multiply with the mean or average that is 2.48 that comes to 99.20 or suppose you have been going to use as a median multiple then 14 to 2.5 comes to 100 rupees per share.

So this is the one can find out but this method has a limitation it is as if the value of the company is driven with book value of assets, value of the equity is driven that is one method. That is one the limitation value of the company may be driven by something else other than the book value of the assets or book value of equity for that matter that is another limitation. And book value also could be is also historical in nature that is another limitation of this particular method.

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Then other things that we have like, we did so like we can have cash flow per share and then find it so as it is like same method only instead of taking earnings per share one can find the cash flow per share of different companies. And find the price of different companies comparable companies so find out price to cash flow per share of companies 1 to let us say company 5 then take the average of this and then multiply. Whatever value we got here we multiply the cash flow per share of your target company.

And find the value per share because profit has limitation whether profit might be same as cash flow. So that can that limitation taken care another popular method is used called price to sales per share then or revenue per share instead of taking profit. Because the company may not a profit company profit may be, actually negative so that case what to go for so we go for sales particularly company which is starting startup companies they have revenue.

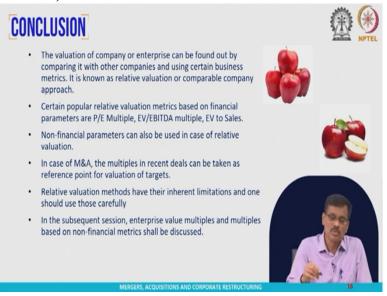
But they have lot of operating cost that list to losses so there you cannot apply price to on earning or even cash flow or may not be there for the similar company which is positive. So in that case one can use price to sales per share revenue per share, and find out the value of the equity. But the caveat in here is that cells represent the entire company but when you are looking value of equity.

So this method can be used for those companies which is x mostly financial equity the company is not financed by date in that case this is applied. Because whenever you are looking at a ratio or valuation ratio for that matter we have to look at the, consistency of numerator and denominator. If numerator belongs to in this case numerator belongs to equity

shareholders or date belongs to all investors the denominator belongs to all investor that leads to inconsistency.

For example in this case sales are for the company means all invest together whether the price to market price nothing but equity for that matter so that is called inconsistency in the formula. So that is the problem if the company is finance entirely by equity there is no inconsistencies and then this particular method can be used.

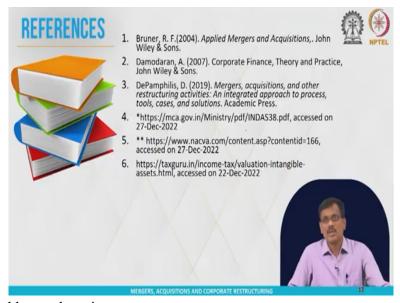
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So in conclusion yes one can find out the value of the enterprise that using comparable companies there are certain parameters like we have price running multiple we also have other multiples like enterprise value EV or EBITDA multiple, EV to sales multiple which will be discussed in the subsequent session non finance matrix also can be used for relative evaluation and in case of M and A the multiples recent deals also can be taken that is called transaction multiple.

And inherent there are certain limitations relative valuation method one has to be careful about and using that and this next session we will be discussing more about the, enterprise value multiples and multiples based on non-financial matrix as value driver.

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So thank you and happy learning.