Managerial Accounting
Prof. Dr. Varadraj Bapat
Department of School of Management
Indian Institute of Technology, Bombay

Lecture - 14
Ratio Analysis

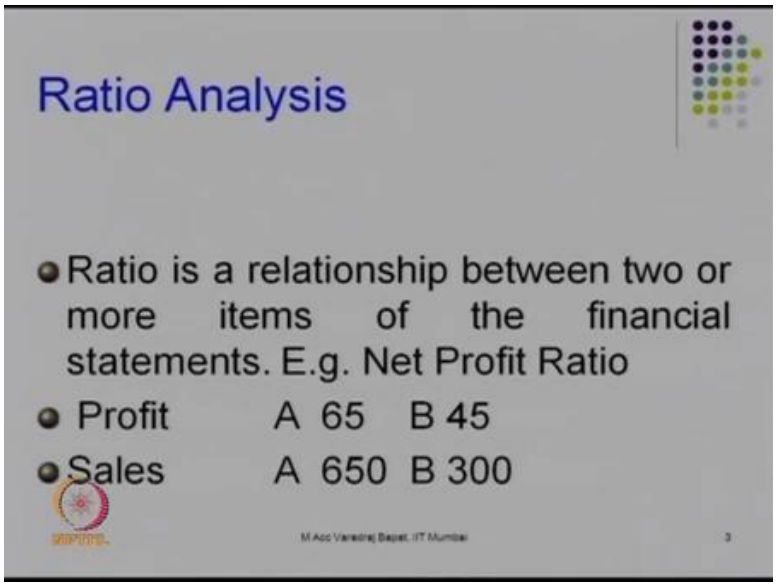
Dear students, in our last session we are started the discussion on Analysis of Financial Statements. To recap in few minutes, which are the important financial statements, do you remember? One of the important statements is balance sheet. It gives us the financial position as on a particular day. There is another important statement known as P and L account. Profit and Loss accounts tells, you about income, expenses and the profitability.

Then, we have also seen learn casual statement, which tells about the flows. In flows and out flows of two are out of an entity. Though, these financial statements are very important. And they give lot of data. It remains as a raw data largely, because we do not actually get relevant information from the view point of a particular stock holder. Let us say, you are an equity share holder. You may like to know, how much are the profits available to be on my share?

You may like to know, what are the future prospects of the company? Suppose, there is a banker. Banker may be interested in knowing, how much are the likely, the chances of default in repayment of my loan. So, for getting such relevant information, it becomes very important to analyze the financial statement. And exactly, get what you want. And that is what we are learning, when we are learning interpretation and analysis of financial statements.

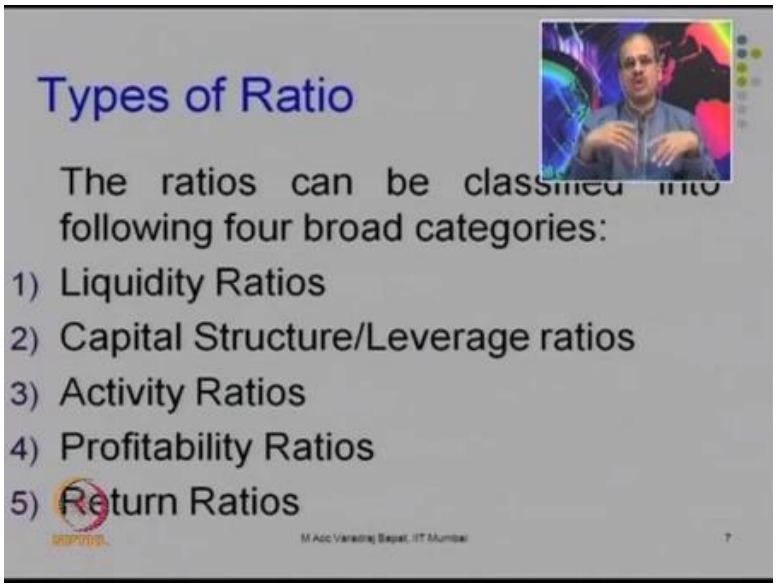
In our last session, we are discussed comparative and common sized statements, which are the tools for vertical analysis and horizontal analysis. Then, we had also done some study of ratios and also applied it in a real life situation. Today, let us learn few more ratios, which will be followed again by some practical cases. Let us have now, a recap of some ratios, which we have done in last time.

(Refer Slide Time: 02:35)



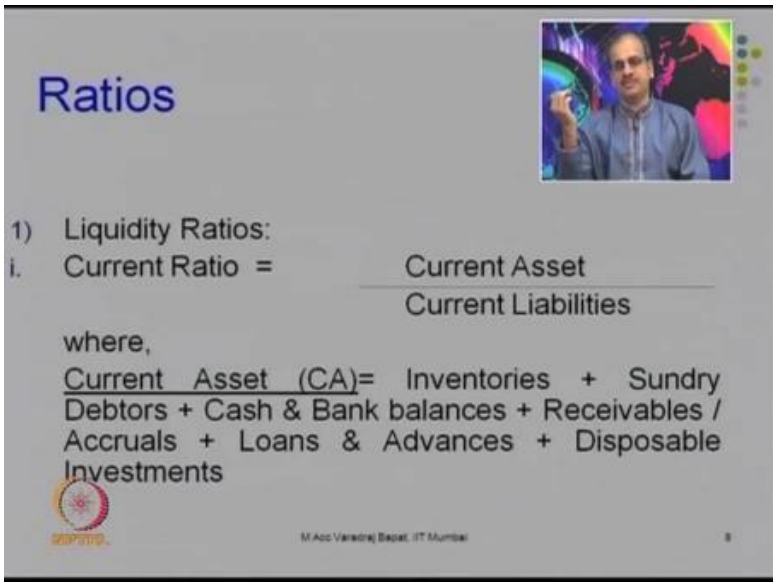
As we have seen last time, ratio is essentially a relationship between the two items. So, here you can see profits and sales. To calculate net profit ratio, we try to find the relationship between these two items. I will skip this, because we have done it last time.

(Refer Slide Time: 02:57)



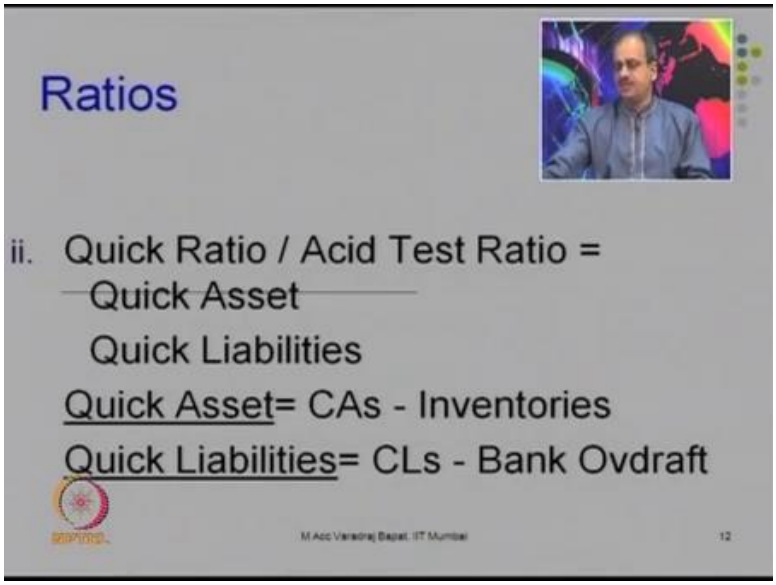
Then, we had seen that there are variety of ratios. But, important ones are liquidity ratios, capital structure ratios, activity ratio, profitability ratio and return ratios.

(Refer Slide Time: 03:10)



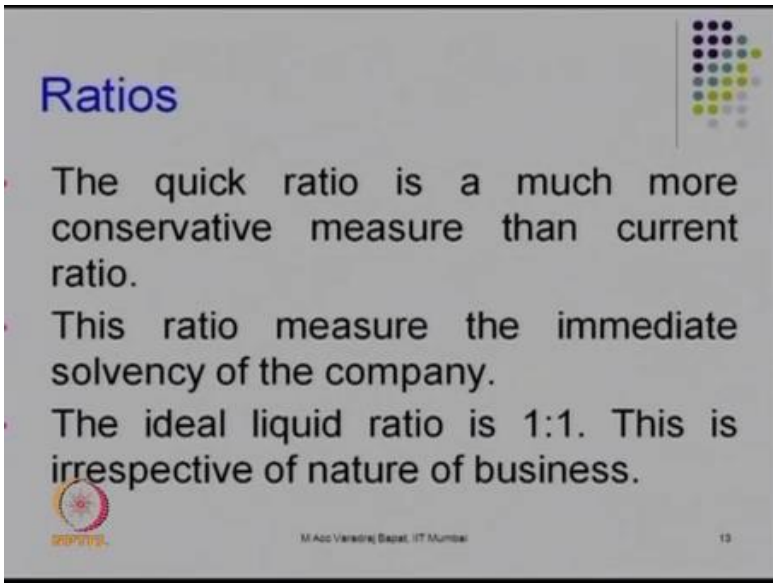
This is about the liquidity ratios. One of the most important liquidity ratios is current ratio, which is the relationship between current assets upon current liabilities. You all know what is current asset and what is current liability? So, this ratio helps you to find out, thus the company has enough current assets to pay for it is current liabilities. So, the first important ratio for liquidity is current ratio.

(Refer Slide Time: 03:46)



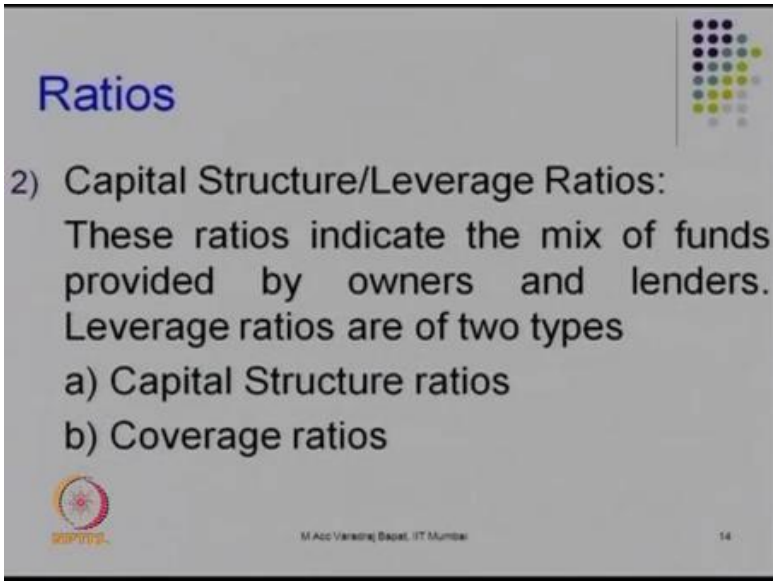
There is another important ratio, that we have seen again last time. That is known as quick ratio, acid test ratio it is sometimes also called as liquid ratio, which is a relationship between current assets and current liabilities.

(Refer Slide Time: 03:57)



Now, this is more specific measure. And it tries to measure whether company has enough money to pay for it is day to day liabilities.

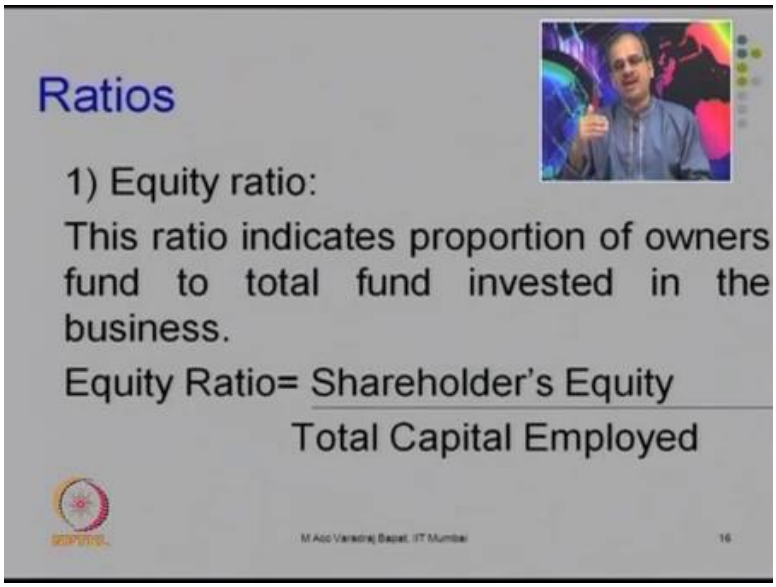
(Refer Slide Time: 04:06)



The next one is capital structure ratio. Now, in liquidity ratios we were trying to find, whether company can pay it is immediate liabilities. In case of capital structure ratios or

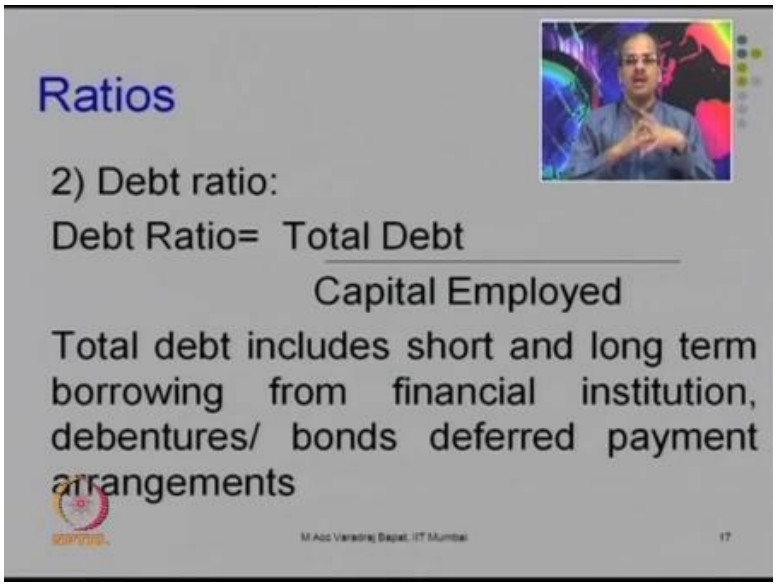
leverage ratios, we are looking at the lone term solvency of the company. So, whether company can survives sustain for a long time. So, we try to find a relationship between the equity funds or the owners funds of the company to the loan funds.

(Refer Slide Time: 04:42)



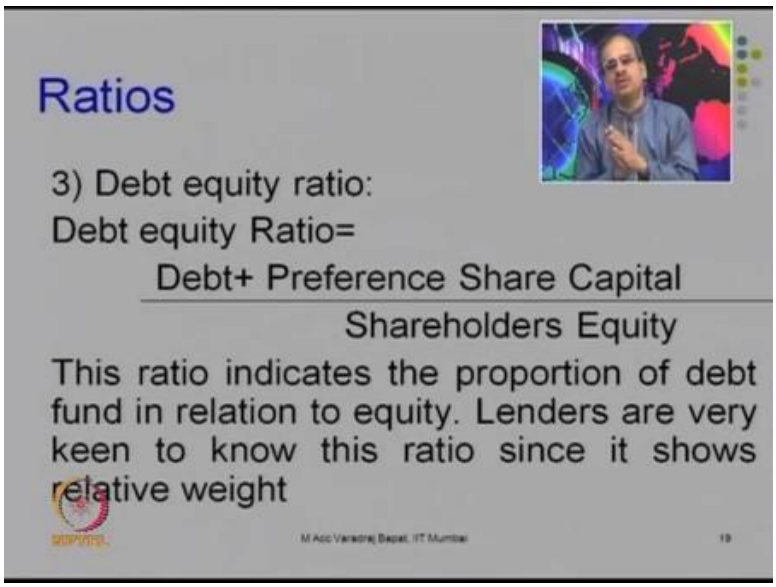
So, one of the important ratio again we have seen it last time, is an equity ratio, where we find the shareholders equity upon total capital employed. So, we try to see, what percentage of the total funds are financed by the owners? Now, if this ratio is high, what does it means? So, if the ratio is high, it will mean that good amount of funds are finance by the owners, which means that company does not have too much depend or too much varied about repaying the outsiders liabilities. So, it increases the longevity of the company, it increases the long term solvency of the company.

(Refer Slide Time: 05:25)



Opposite to this, there is another ratio known as debt ratio. This tries to calculate, what percentage of funds are finance by debt. So, here again what will happen is, if this ratio is high, it will increase the financial risk of the company. However, the high debt ratio provides the benefit of the leverage. In the sense that company will be able to expand fast, because it is getting the debt funds. It will also be able increases it is profitability. So, reasonably high debt ratio could be good. But, if it is too high, then the risk level is really go high.

(Refer Slide Time: 06:05)

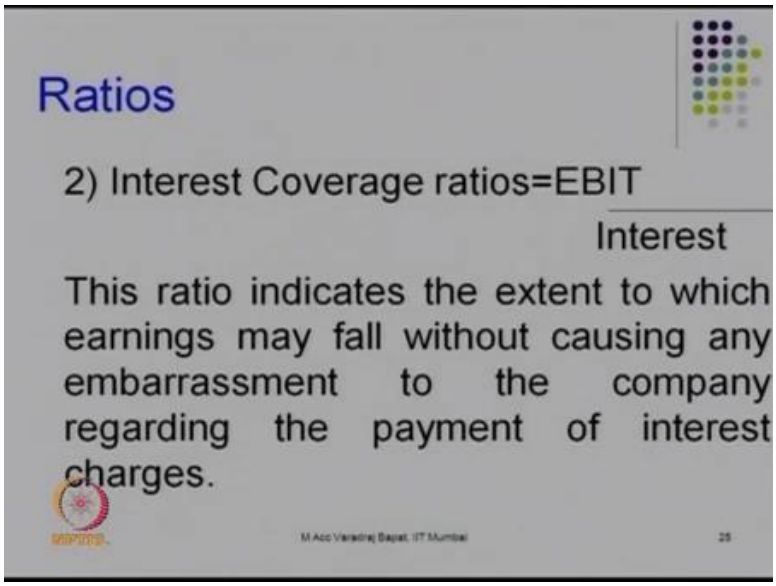


There is 3rd ratio, debt equity ratio. Wherein, which we try to see the debt funds to equity funds.

(Refer Slide Time: 06:16)

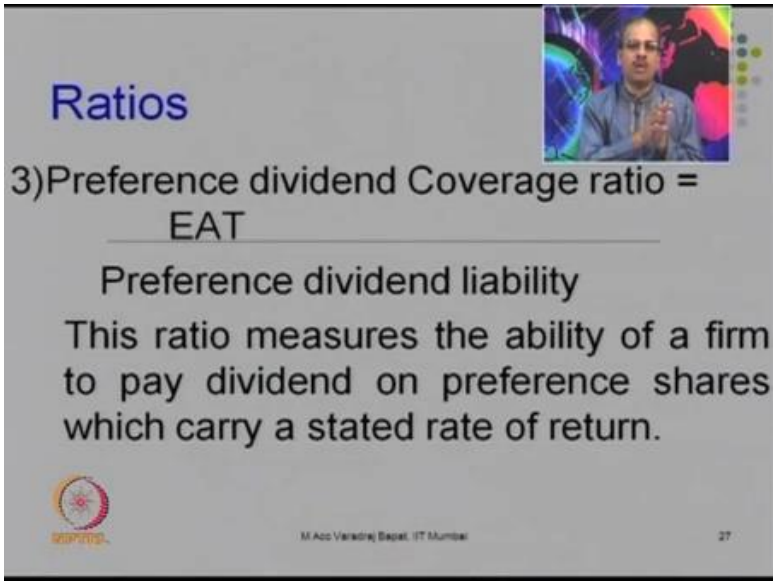
There are also ratios, which try to see. The capacity of the company or entity to repaid loans or to services it is debts, known as debt service coverage ratio, where we look at the earnings which are available for debt service, divided by interest plus installments due.

(Refer Slide Time: 06:39)



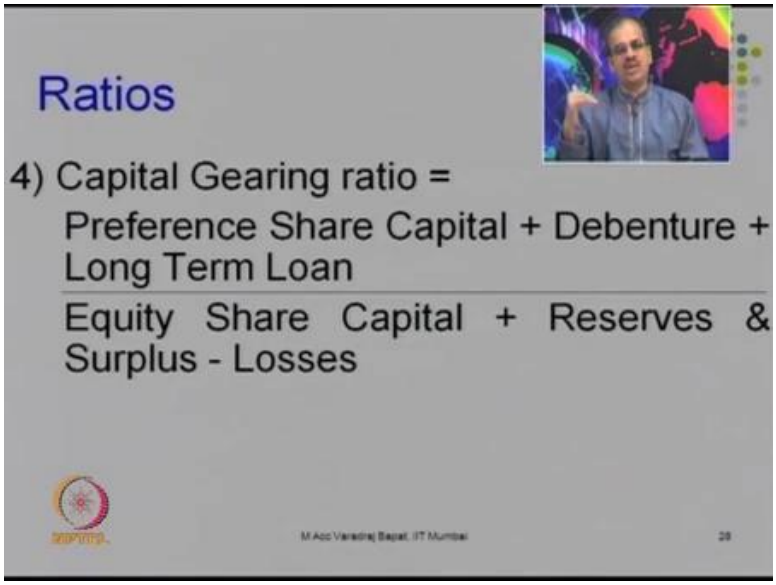
There is also another ratio, which is known as interest coverage ratio, which tries to look at the capability to repay the interest. So, it is EBIT upon interest.

(Refer Slide Time: 06:53)



In the same manner, there is also ratio which tries to find the funds available for payment of preference dividend. So, it is earnings or profit after tax divided by preference dividend.

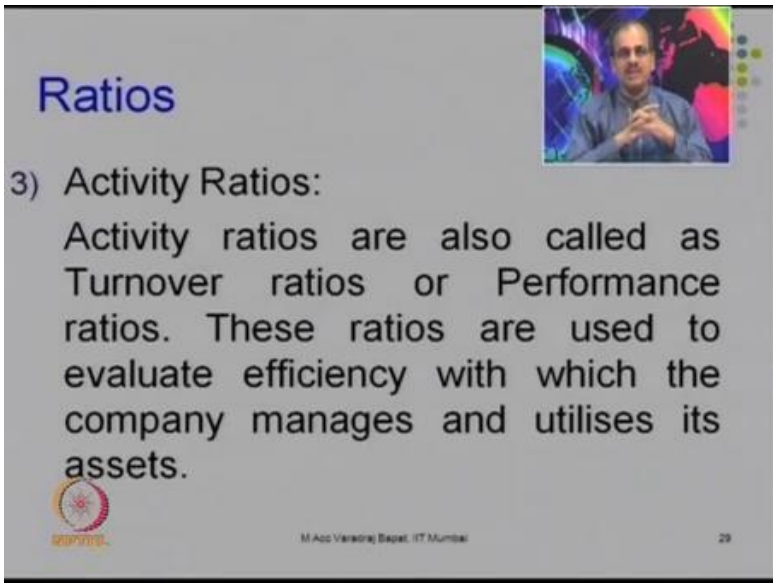
(Refer Slide Time: 07:06)



There is also an important ratio known as capital gearing ratio, which is very similar to debt equity ratio, where we are trying to find the total money on which. There is a firm

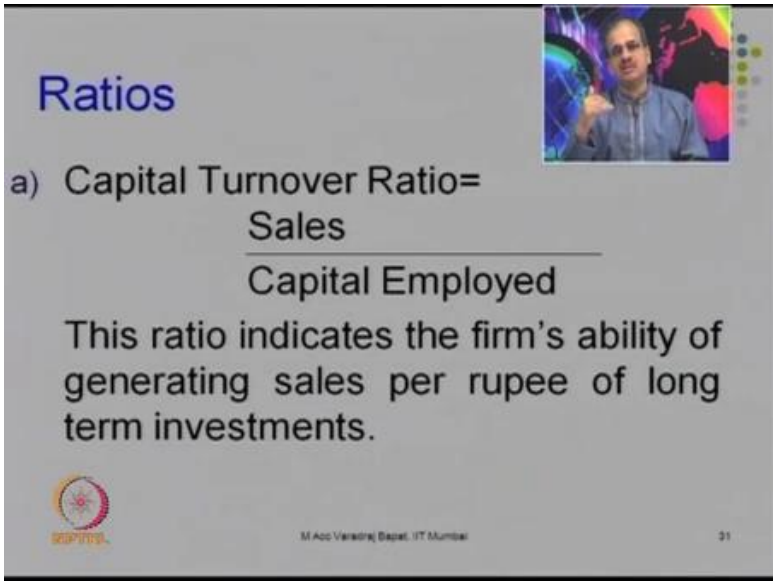
liability to repay, either the installment or the interest. So, preference capital plus debt funds or debentures divided by equity share holders money. So, this is the capital gearing ratio.

(Refer Slide Time: 07:35)



Then, the next type of the ratios, where are the activity ratios. If you remember, in our last session, we had come up to activity ratios.

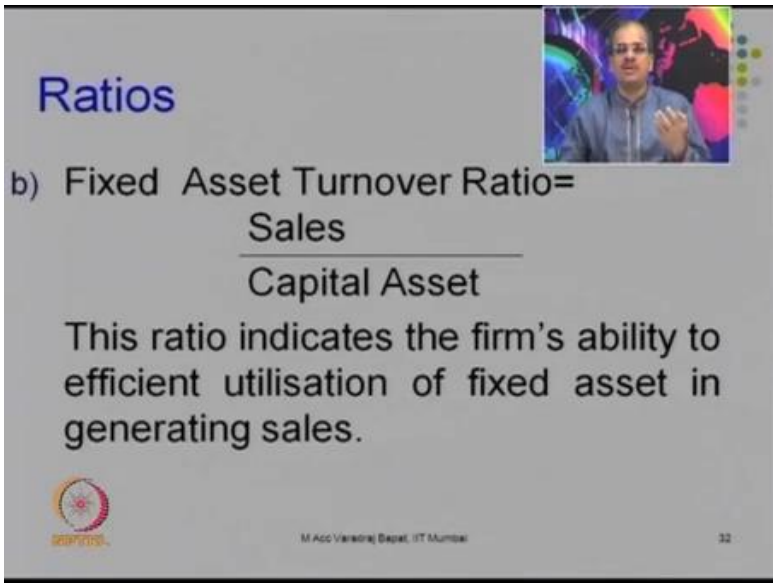
(Refer Slide Time: 07:48)



These are also known as profitability or turnover ratios. The first one among them is capital turnover ratio, where we try to find how many times the sales are generated with

service with the capital employed. So, it is sales upon capital employed. Should this ratio be high or low? Naturally this ratio should be higher. It indicates that, the entity is efficient. It is able to generate more sales by using the same amount of capital.

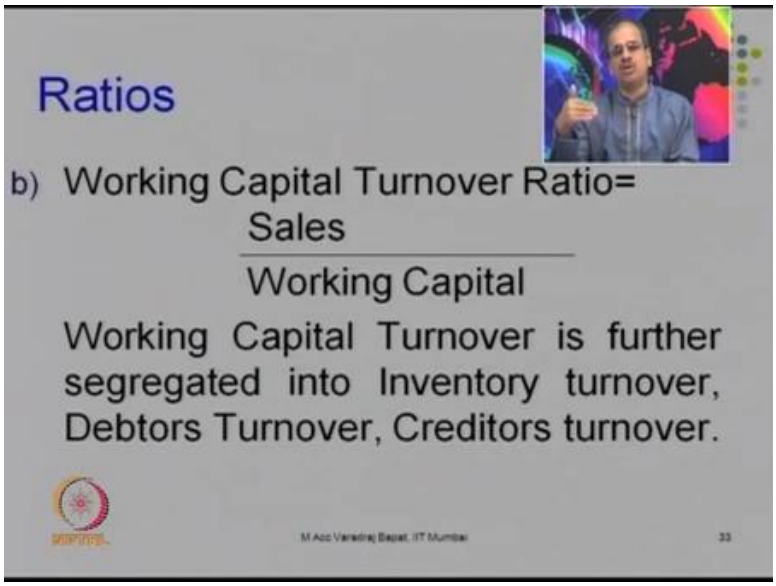
(Refer Slide Time: 08:19)



Same way, you also have fixed asset turnover ratio, which relates sales to capital assets or the fixed assets. So, if the companies able to generate more and more sales, using the same amount of fixed assets, it shows the effective utilization of fixed assets. Let us take a simple example. If you assume that, you have a relatively small retail shop, which has let us say, makes us a sale of 50 lakhs in a week. There is another large size mall.

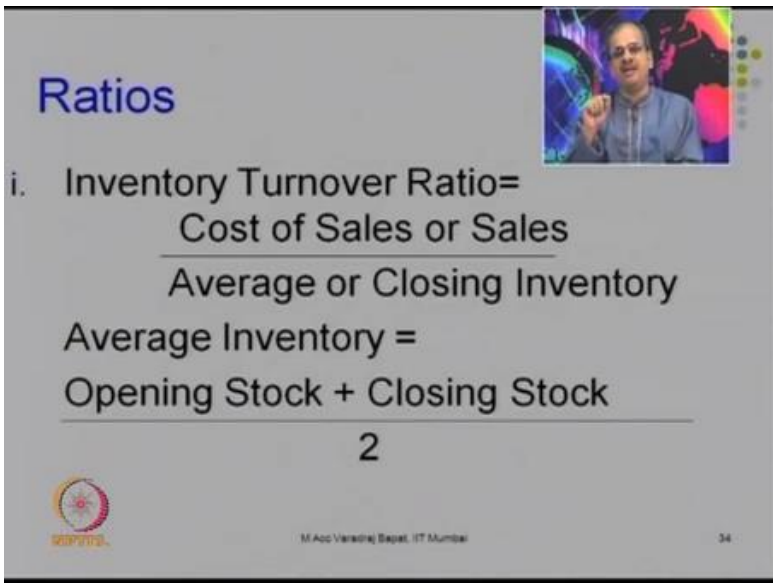
It keeps lot of stock. It has a big size of showroom. That also makes, sale of 50 lakhs. Then, which is more efficient? It is common sense that, the small shop. Even, with small capital assets size, if they are able to have a sale of 50 lakhs, it shows their efficiency. So, we are trying to relate the turnover generated, ((Refer Time: 09:24)) capital employed or capital assets used.

(Refer Slide Time: 09:28)



We can also look at the working capital turnover, which is sales upon working capital. It tries to see, how efficiently the companies able to use, it is working capital.

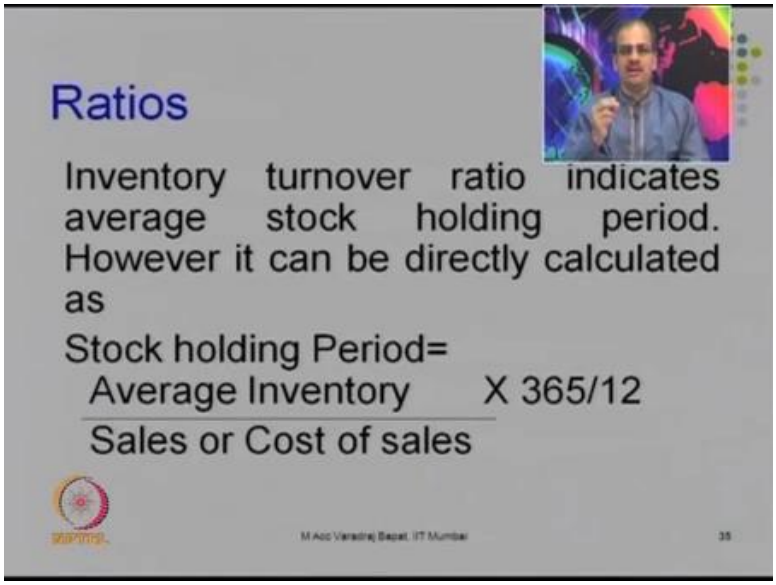
(Refer Slide Time: 09:40)



It can be further sub divided into, the use of inventory deters and so on. So, you have an important ratio, inventory turnover ratio, which shows the efficiency in use of stocks or the inventory. Since, the stocks or the cost, usually we take the cost of sales in the numerator divided by average inventory. If you do not have cost of sales, you can use the

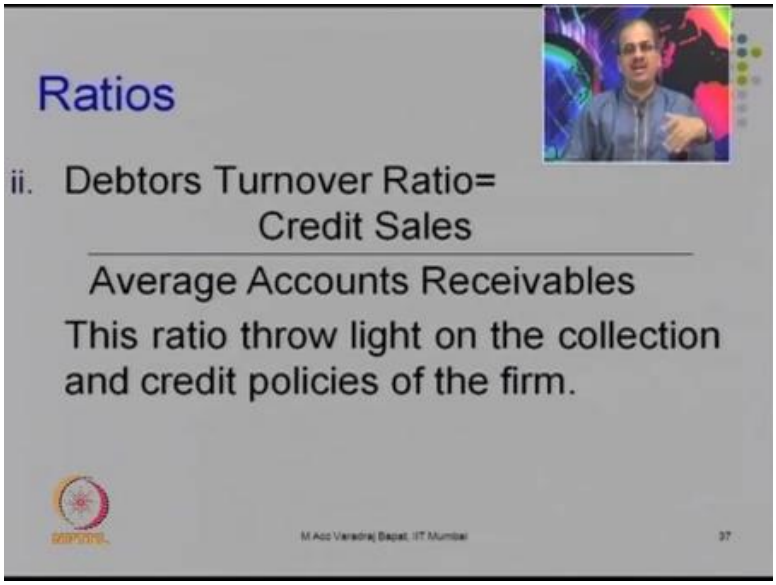
sales figure and divided it by average or closing inventory. This will tell you, how efficiently the stock is being managed.

(Refer Slide Time: 10:14)



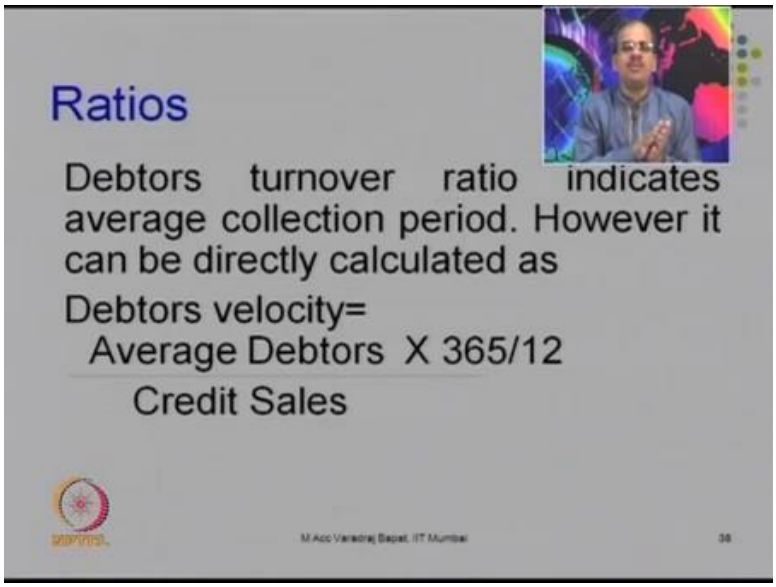
Inventory turnover ratio can also be loop form another angle. We can converted it into stock holding period. We tries to calculate how many days of inventory an entity is keeping, which can be compared with the policy. So, that we know, whether the stock policy is being added to… And overall also we know how much of inventory the company has accumulated or company needs for day to day use.

(Refer Slide Time: 10:47)



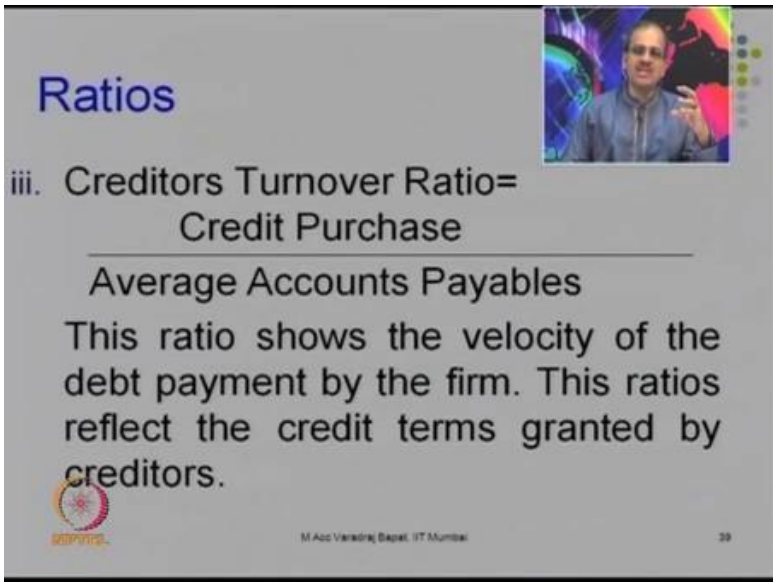
Similar to inventory turnover ratio, there is debtors turnover ratio or it is also known as receivables turnover ratio, which tries to relates sales ((Refer Time: 10:59)) average accounts receivable.

(Refer Slide Time: 11:00)



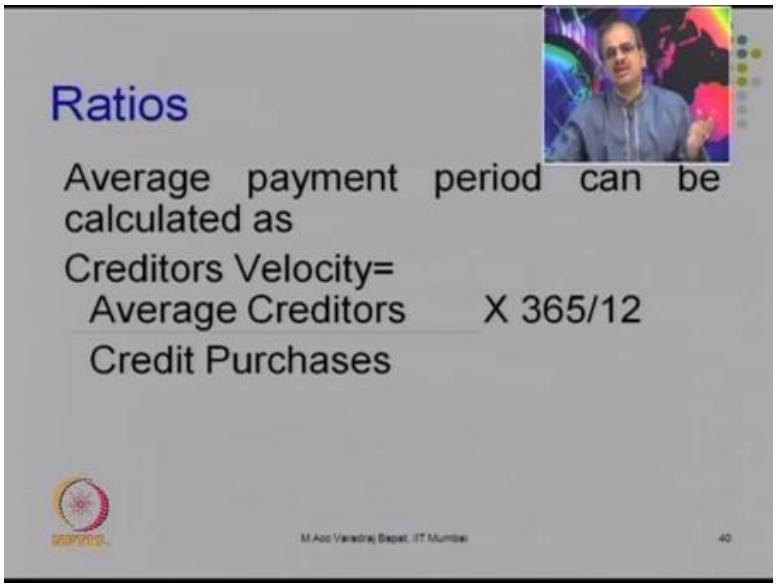
The ratio again can be converted into debtors velocity, which is exactly the opposite of it, which tries to find the debtors upon sales into 365 or 12, if you want in months. So, what we tries to do is, we try to find, how many days of receivables an entity has. Again, we will try to see, how does it compare with the policy? And every entity, will try to reduce the time of the debtors velocity, because company wants to recover the debts or the receivables, as fast as possible.

(Refer Slide Time: 11:44)



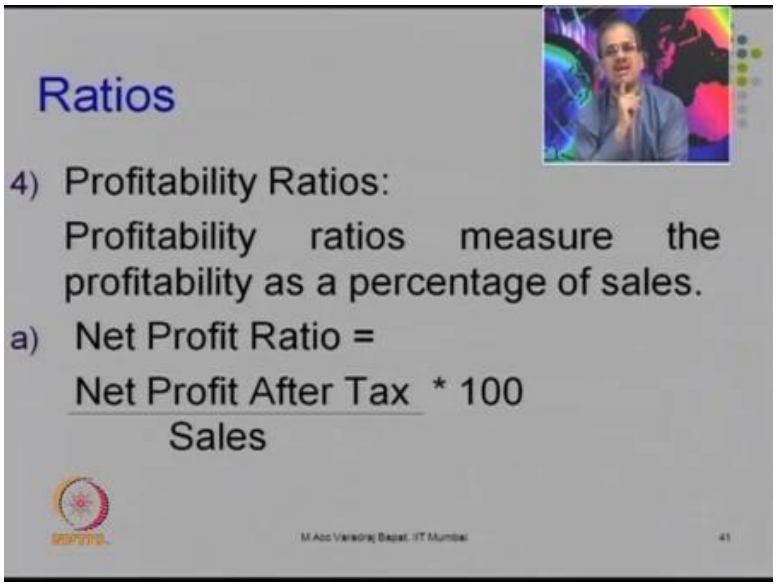
On the same lines of debtors, you also have creditors turnover, which relates credit purchases to account payables. So, here we are trying to see how many days of credit, an entity is able to get from it is supply?

(Refer Slide Time: 12:01)



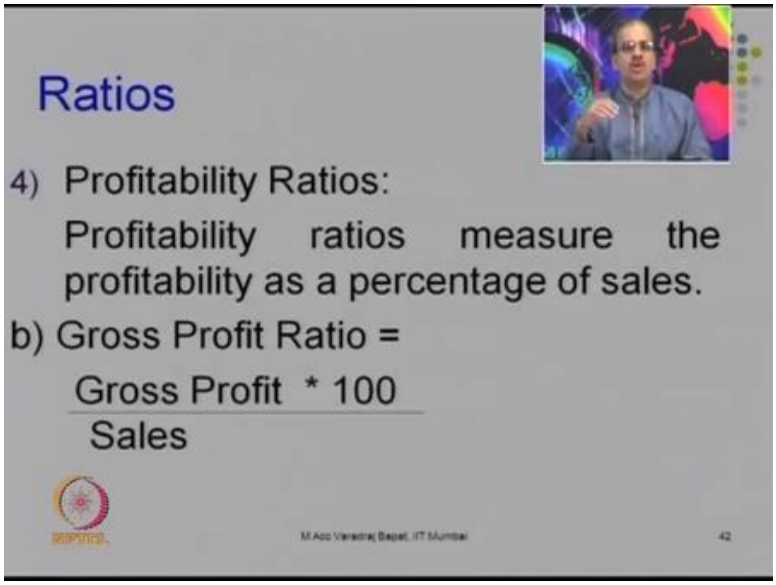
This ratio also can be converted into number of days, which is known as creditors velocity.

(Refer Slide Time: 12:09)



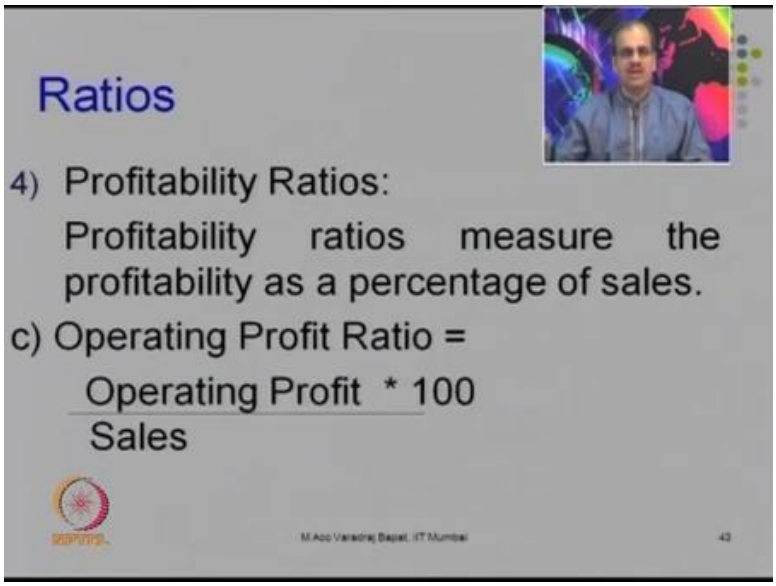
Now, the next important types of ratios are profitability ratios. So, every share holder practically, from the owners, bankers, employees. They are all interested in profitability. So, profitability ratio tries to find, how much is the profit earned by the company with service to the sale generated. So, one of the important profitability ratio is net profit ratio. It tries to find net profit after tax, as a percentage of sales.

(Refer Slide Time: 12:44)



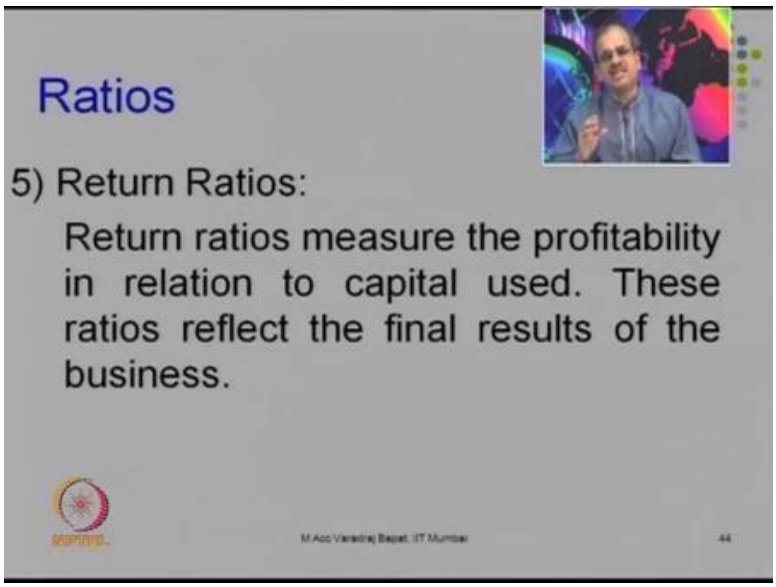
You also have a gross profit ratio. Again it links gross profit to sales.

(Refer Slide Time: 12:51)



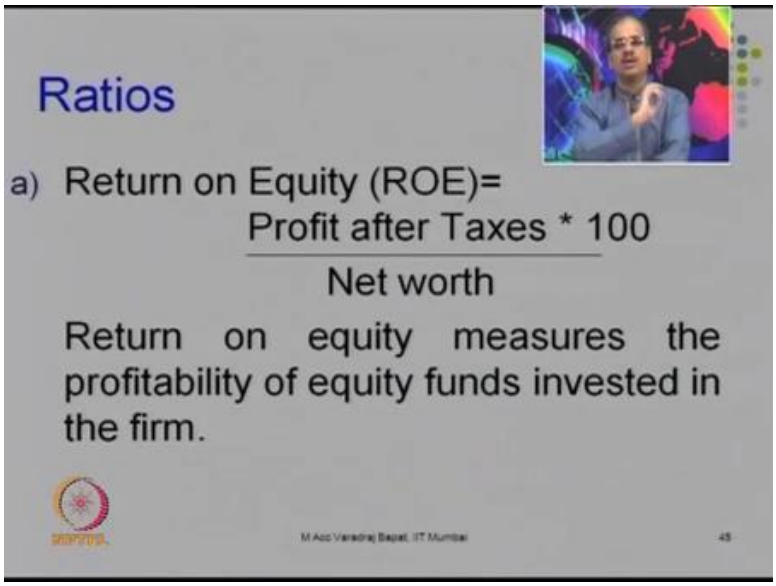
On the same lines, you also have operating profit ratio. It tries to link operating profits to sales.

(Refer Slide Time: 13:00)



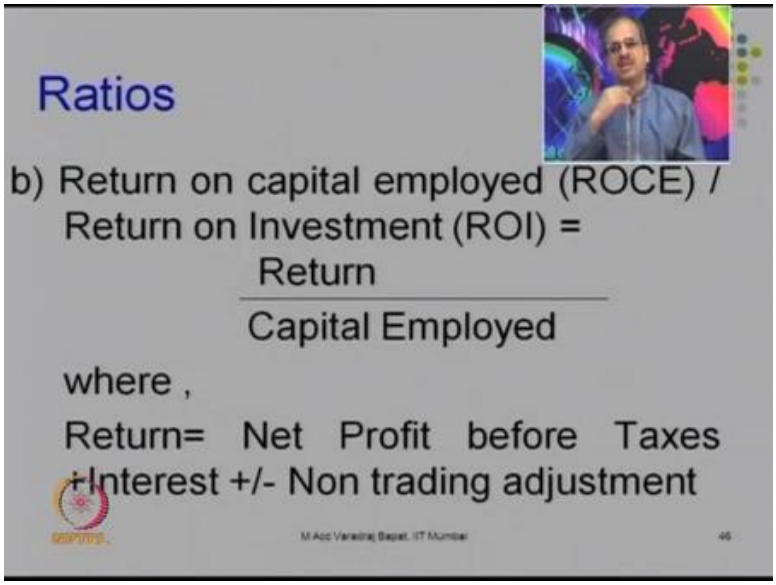
Now, there is a 5th category known as return ratios. These are also profitability ratios. But, here profitability is computed not in relation to sales. But, it is computed in relation to the capital used.

(Refer Slide Time: 13:15)



So, the first ratio in this category is return on equity. Here, we are trying to find on the money of the equity shareholders. That is the network. What is the percentage returned the company is able to earn? Now, the profit available to equity shareholders is nothing but, the profit after tax. So, we take profit after tax and divided by network or owners funds, to get return on equity.

(Refer Slide Time: 13:46)



The second ration in this category, which is little more broad based is return on capital employed. It is also popularly known as ROI or Return On Investment. So, it tries to

measure return, as a percentage of capital employed. Here, the return relates to not profit after tax. But, profit before tax, you also add back interest. And we make adjustment for non trading incomes. So, if there are non-trading incomes, which are included in profit.

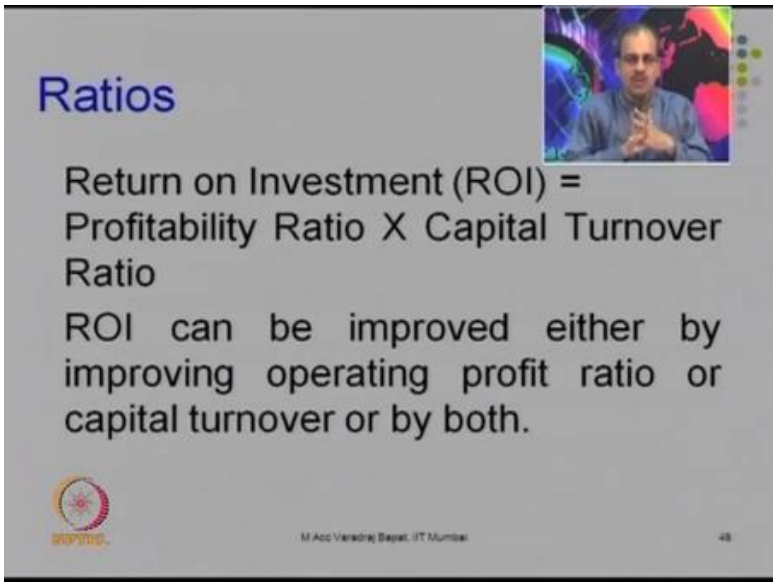
They will be removed, because here we are interested in knowing, what is the level of return the business or the operations are able to generate? So, here in the numerate, we try to look at the profit or the returns, received on operations divided by the capital employed.

(Refer Slide Time: 14:46)

I hope, you know what is capital employed? Wherein, we take both the types of funds, that is equity share holders funds, referential capital plus long term debt. And we also minus non trade investments ((Refer Time: 15:06)). So, the logic of this ratio is we are trying to find, what is the percentage of return on the capital used in the regular business? This ratio is very important. So, I am explaining you for little more time.

So, if one company wants to acquire another company, then one of the important criteria is will be, what is a ROI of that another company? Same way, if a particular entities trying to evaluate its capital projects, it wants to take a number of projects. Again, ROI plays a very important role. Because, everyone would like to know, what is the likely return to be earn on the money invested in this new project? So, again ROI plays a very important role.

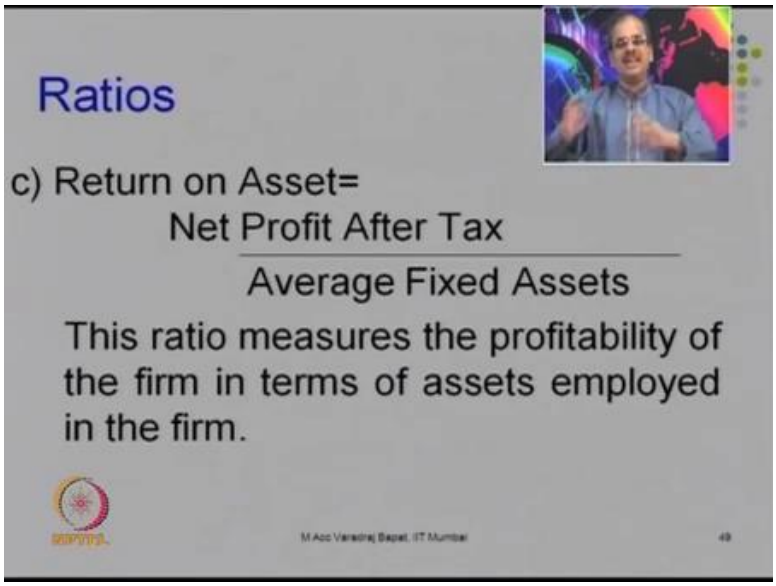
(Refer Slide Time: 15:54)



There is also one more way to calculate ROI. As we are seen here, ROI is basically return upon capital employed. It can be broken down into two ratios. You have, already have profitability ratios. If you multiplied by capital turnover ratio then you get ROI. This hints us, that ROI can be improved in two ways. One is, you improving operating profit. That is, you increase the… See margin, which you earn on your sales or you improve the capital turnover.

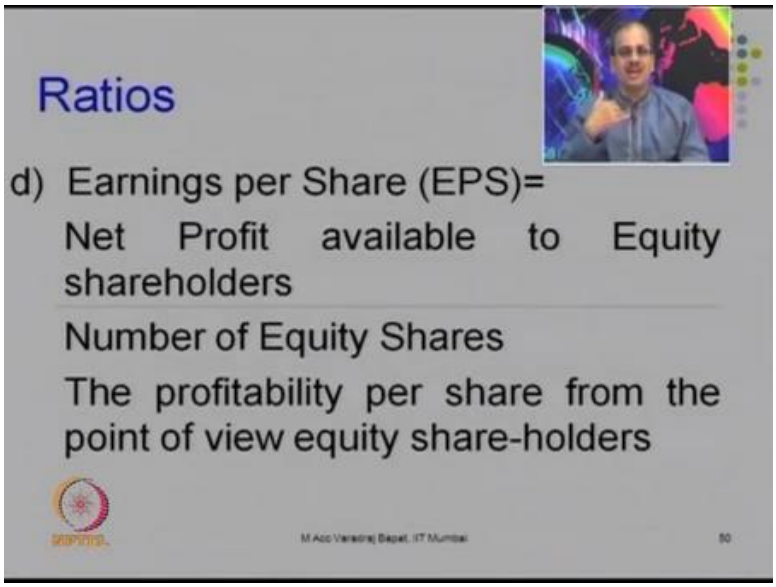
That is, you try to generate as much more sales as possible, by using the same resources. And of course, while doing both the things, because both the things can go hand in hand. You also try to improve the profitability, and parallely try to increase the sales, which will give you a higher ROI.

(Refer Slide Time: 16:52)



There is one more return ratio also. That is known as return known assets, where we are trying to find the profit generated by the use of fixed assets. So, it is NPAT upon average fixed assets.

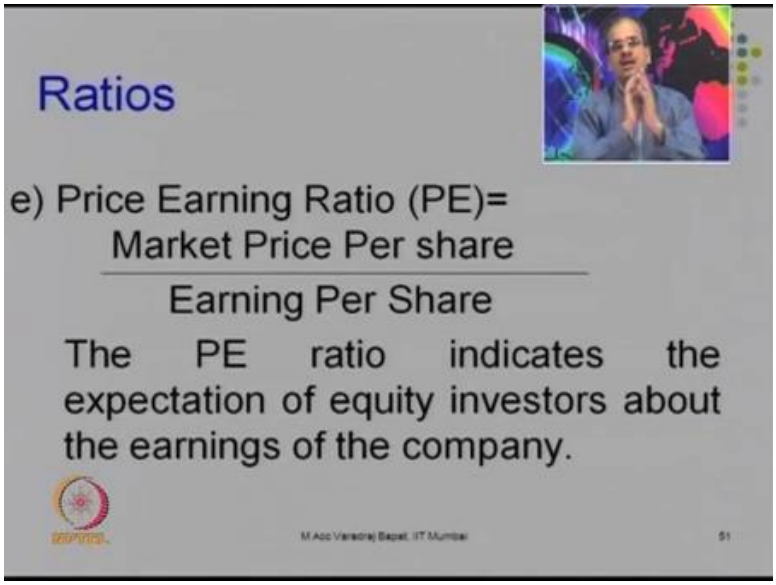
(Refer Slide Time: 17:09)



One more ratio could be earning per share. Now, this is not exactly linking to capital. But, it is very important ratio because, equity share holders will be very keen to know, how much profit, they are getting per share? So, net profit available to equity share

holders, which is generally NPAT divided by number of equity shares. This gives us EPS.

(Refer Slide Time: 17:40)

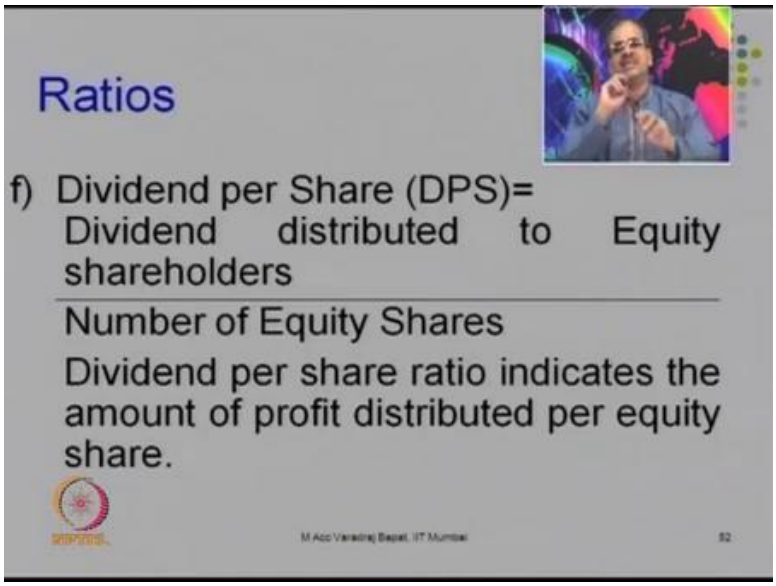


There is another very important ratio, especially from stock market angle. That is known as PE ratio, Price Earning Ratio which tries to link the market price per share to earnings per share. This ratio is extremely important, because it links the profitability. That is EPS to the stock market price. So, this gives what is the expectation of the equity share holders from a company. Now, we need to good to have high PE ratio or it is not so good to have high PE ratio.

Now, here it is an interesting observation. What happens is, if PE ratio high it means, that companies commanding good respect, good premium in the market. Investors are willing to buy its earnings at higher multiple or they are willing to pay a higher price for a certain level of EPS, which means that company has respect in the market. But, if you are looking at yourself from the investor, then if you sit in the investor seat to high PE ratio, mean indicate that these shares are very costly.

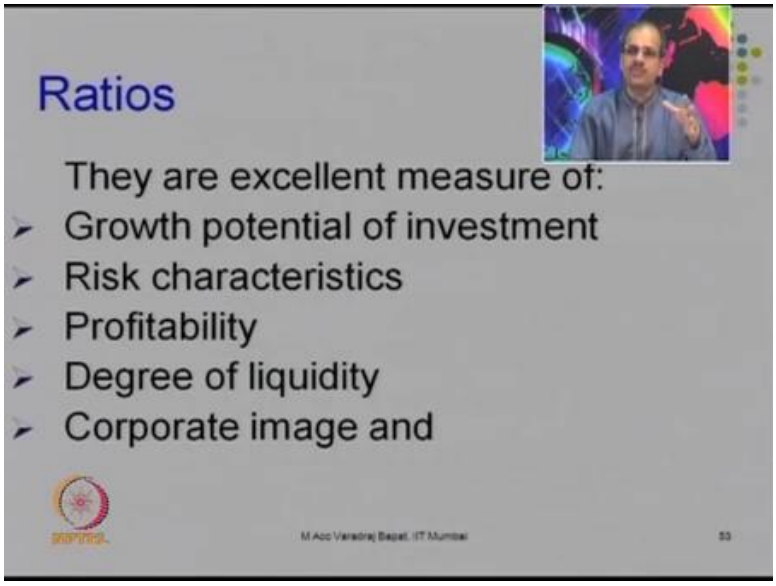
It may not make a good purchase. So, we have to see, from which angle you are looking to judge whether high PE is good or low PE is good. But, generally high PE indicates the goodwill of the company.

(Refer Slide Time: 19:13)



Just as we have found, EPS there is also another major, that is known as DPS or Dividend Per Share, which tries to relate the dividend distributed to number of equity shares. So, these were all the return ratios, of this EPS and PE are one of the most important. If you look at any business newspaper or even ordinary newspaper, many times you will see that, market prices are quoted and PE ratios are quoted, because that is where you link this market price to the performance or the profit of the company.

(Refer Slide Time: 19:53)

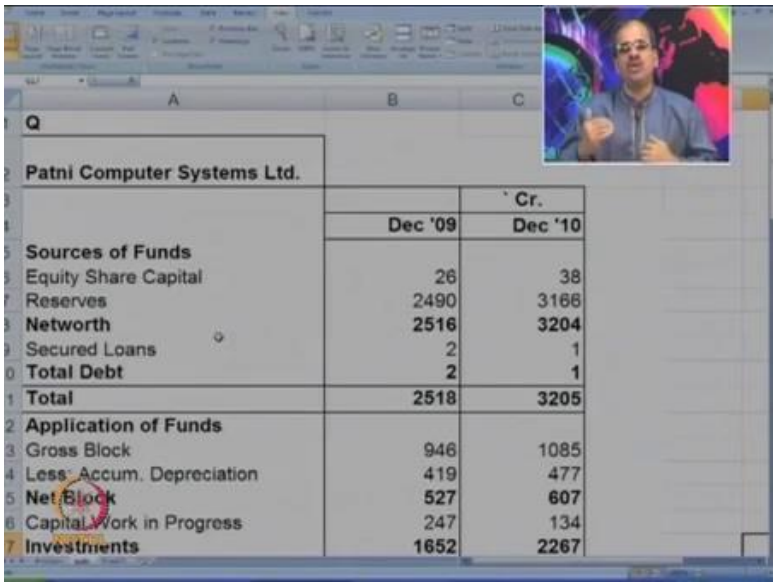


So, we have finished our discussion on the ratios. You would have understood that, this is a very important major. It can be used for variety of purposes like growth potential, risk factors, liquidity, profitability, corporate image and so on. So, the ratios can be used to judge the performance of, say entity a. They are also useful to compare with the past performance of the same entity or they can be useful for comparing the performance with another entity.

So, you can compare a limited with b limited or with the industry average. That is why, ratios become one of the most important tools for financial statement analysis, because they are very flexible. You can calculate hundreds and thousands of ratios. But, I have try to show, some of the important ratios in this presentation. However, I request you that, you can find different relationships. You can take up the balance sheet or P and L account of any company.

Try to find out the relationship within the same statement or with one statement figure with another statement. And then that those ratios can be compared with the different company, same ratio of different companies. That will give you, lot of inside into the functioning of the company. So, I think we have discussed a lot on the ratios. Now, let us look at real life case.

(Refer Slide Time: 21:38)



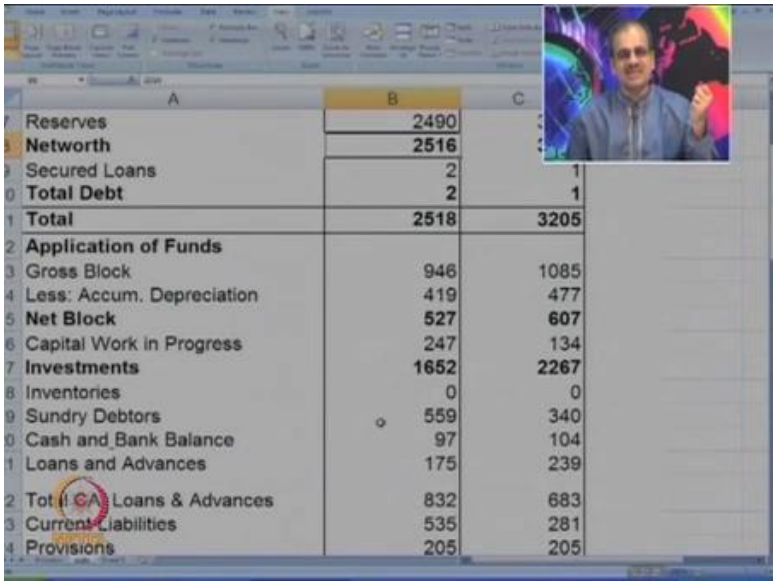
Patni Computer Systems Ltd.		` Cr.
	Dec '09	Dec '10
Sources of Funds		
Equity Share Capital	26	38
Reserves	2490	3166
Networth	**2516**	**3204**
Secured Loans	2	1
Total Debt	**2**	**1**
Total	**2518**	**3205**
Application of Funds		
Gross Block	946	1085
Less: Accum. Depreciation	419	477
Net Block	**527**	**607**
Capital Work in Progress	247	134
Investments	**1652**	**2267**

Now, this is the financial position of Patni. I hope, this is visible to you. This is the balance sheet of Patni computer systems. Profit and loss account, some important data's

are also given. And we have been ask to calculate certain ratios, which we have already learnt like current ratio, quick ratio and so on. I have not shown any formulas here. Let us try to look at the figures and try to calculate, each of the ratios.

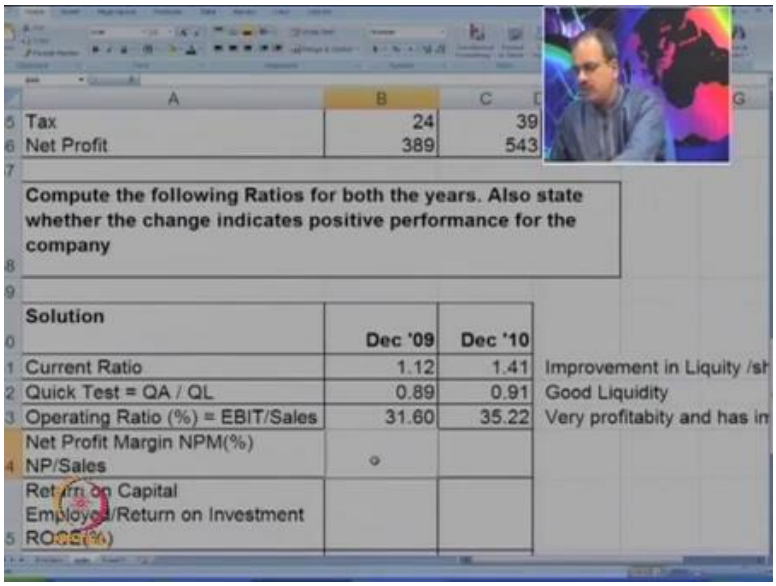
Before that, I will request you to have a look at the balance sheet. First, make a overall judgment about the company. And then we will go into calculation of detailed ratios. So, what do you observe by looking at the balance sheet prima of a sea. You can see here, that company has very less dependent on loans. It is almost fully financed by its equity, which is the case of many of the software companies.

(Refer Slide Time: 22:46)



If you look at the assets, you will realize that inventories are zero, again because it is into the services. You also realize that, net current assets are also very low. They are only 92. Investments are relatively high figure. So, company, it looks like as a lot of excess cash. It is investing it in various investments. Also look at the profitability record. Now, after this brought view of the financials of the company, let us try to analyze in detail by going further ratios.

(Refer Slide Time: 23:27)



So, here certain ratios are given. The first one is current ratio. Now, how to calculate current ratio? Anybody, remembers the formula for current ratio? Because, we have seen in the last session, what and even today, we have done a little bit of revision. So, current ratio is essentially a relationship between current assets versus current liabilities ((Refer Time: 23:58)). You can see here, this is the figure of current assets of the entity.

And we are going to related it with the total CL and provision. Do not take only the figure of current liabilities, that is 535, because provisions are also a part of current liabilities, in a boarder sense. That is why, total CL plus provision, this 940 divided by 832. Are you getting me? I am just going slowly. Please, try to slow it along with me. So, that you are really understand, how we can calculate the ratios. So, in current ratio I am going to relate current assets ((Refer Time: 24:44)) and divided by current liabilities.

You get this ratio. I just reduce the number of decimals to make it readable for all of us. So, 1.12. So, what does it mean? Is it a good ratio or bad ratio? It is reasonably good ratio, because at least it is above 1. But, it is not matching the standard of 2 is to 1. Of course, for a software company 2 is to 1 is not true, because they do not have any inventories. So, 1.12 could be good enough for them.

We can just take it to the next column to get the ratio for the next year, which is 1.41. So, you can see, there is an improvement in the current ratio ((Refer Time: 25:45)). Have a look at the figures. You will find that, the net current assets have almost doubled. And if

you look at the current assets, you will realize that loans and advances have increased. Cash balance, have also increased. But, the sundry debtors have reduced, which is a good sign.

That means, it is not that unnecessarily there is an accumulation of debtors. The debtors have come down. Despite, that they have improved the current assets, current ratios. So, it is a very good sign. It shows good liquidity position. Instead of, good I think, I will specifically say, improvement. That will make better sense for everyone. So, there is an improvement in liquidity position, as you can see. Now, let us try to go for the next ratio.

Next ratio, they have given quick test. What is the formula for quick test? I will try to write the formula, also for your benefit. Do you remember? Quick test or acid test or quick ratio or liquid ratio, it is essentially a relationship between quick assets upon quick liabilities. So, quick assets are more or less same as current assets. However, we do not include loans and advances. We also do not include stock ((Refer Time: 27:39)).

So, have a look now, which are the quick assets of this? Inventories, anyway non quick. But, it is zero. Debtors or a quick asset, I will just mark it as Q. Cash balance is definitely, a quick assets. Loans and advances are generally not treated as quick assets. So, these two are quick assets. We will mark them as QA. Now, look at the liabilities. Usually, both current liabilities and provisions are treated as quick.

So, we are going to take their total as QL. So, essentially it is a linkage of this plus this. That is debtors plus cash, upon the total current liabilities and provisions. So, let us try to calculate. So, this is the total of current assets. We divide it by quick liabilities. So, you get 0.89. Next year, if you drag, you will get 0.91. So, what does it show? It is a good position, not much of a change. So, we can say good. This is known as short term solvency.

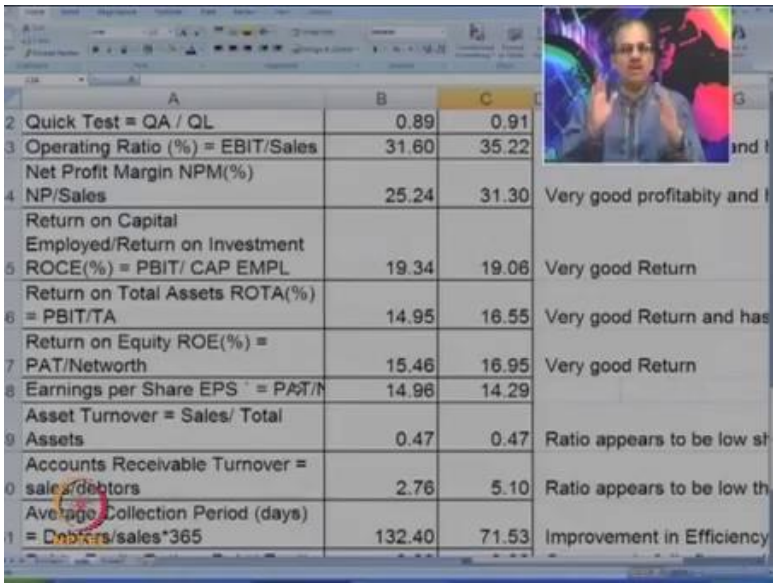
This can better be, rather be called as liquidity. And current ratio, we will name it as short term solvency. So, current ratio we will say improvement in liquidity or short term solvency. And quick test shows, good liquidity position. Actually, many times they are used interchangeably. But, quick test focuses on more on liquid assets. Whereas, current ratio looks at a period of say, 6 months to one year position. So, it could be known as short term solvency or liquidity.

So, first two measures were looking at the liquidity position of the concern. Now, the third one they have asked for EBIT percent. It is also known as operating ratio. So, how do you find? I just specify for your benefit. So, we are trying to look at the EBIT. So, it could be found as a bit upon sales. So, we are essentially trying to find, whether what is a percentage of profit available on the sales generated? ((Refer Time: 31:04)) Look at the profitability indicators.

So, we see that PBIT is 487 and sales turnover is 1541. So, we will divide PBIT upon sales. And generally, we multiplied by 100, because we want in percentage terms. So, we get 31.6. So, what does it show? It is a good positions. Company is earning a good amount of profit on its revenues. We will drag it to next year. We get, we are getting 35 percent. So, the profit ratio is really very good. And it has further improved.

So, you can say that, very good profitability and has improved further. Making sense to you? Now, what is very good, we do not know. But, definitely more than 30 percent is a good profitability margin for the company. Now, the next one is net profit margin, also known as NPM. Sometimes, it is known as net profit ratio. So, what do we link in net profit ratio? We essentially try to calculate net profit as a percentage of sales.

(Refer Slide Time: 32:38)



	A	B	C	
2	Quick Test = QA / QL	0.89	0.91	
3	Operating Ratio (%) = EBIT/Sales	31.60	35.22	
4	Net Profit Margin NPM(%) NP/Sales	25.24	31.30	Very good profitabity and
5	Return on Capital Employed/Return on Investment ROCE(%) = PBIT/ CAP EMPL	19.34	19.06	Very good Return
6	Return on Total Assets ROTA(%) = PBIT/TA	14.95	16.55	Very good Return and has
7	Return on Equity ROE(%) = PAT/Networth	15.46	16.95	Very good Return
8	Earnings per Share EPS = PAT/N	14.96	14.29	
9	Asset Turnover = Sales/ Total Assets	0.47	0.47	Ratio appears to be low sl
10	Accounts Receivable Turnover = sales/debtors	2.76	5.10	Ratio appears to be low th
11	Average Collection Period (days) = Debtors/sales*365	132.40	71.53	Improvement in Efficiency

So, we will take net profit. Here, we generally take net profit after tax. So, 25 percent. Current year, there is a significant improvement. It has become 31 percent. Remember, this is after tax. So, even after paying tax, they are able to earn as high as 25 percent

margin on their sales and further, it has improved to 31 percent. So, same remark will continue that, very good profitability position. I think, last time I have skipped that word very good.

So, I am trying to say a very good profitability position, again has improved further. So, both EBIT and NPM are trying to make profits. However, EBIT looks it at operating level. NPM or Net Profit Margin gives you the final profitability. So, next one is return on capital employed or return on investments, popularly known as ROC or ROI. Here, we are trying to see, how much is a percentage of profit earned on the money invested in the business?

So, what is the formula? What we would try to link? So, we are essentially trying to link the PBIT, which is a profit before interest and taxes, to capital employed. So, what is capital employed? It is a total of dead fund plus owners funds into hundred, because we want it in percentage ((Refer Time: 34:49)). So, look at the liabilities now. For capital employed and look at profitability for the profits. So, we will pick up PBIT and divide it by the total sources of funds.

That is net worth plus debt and multiply by hundred, because we want in percentage terms. So, 19.34 percent is our profitability. And if you see the current year, it is almost stable. It is 19.06, again a very good return. About 20 percent return, they are able to earn. So, the remarks are similar, very good profitability and improvement. Instead of profitability, I will say return. Only thing is, there is no further improvement.

So, company is able to earn a reasonably good amount of return. The next is ROTA, Return On Total Assets. So, here we are trying to find the profitability or the profit generated by the use of total assets. So, we can link it either to net profit or we can link it to profit at operations. It is more logical to do it with profit at operations, that is PBIT divided by Total Assets that is TA, so PBIT.

Let us go up for more clarity ((Refer Time: 36:42)). PBIT, you know it is 487. Look at the balance sheet. What will be the total assets? Keep in mind, it is not this total of 25818. It is a total of net block, working capital, investments plus total current assets. In other words, we will not deduct current liabilities, which are already deducted for this calculation. Are u getting clear? So, all assets are added. But, we will not deduct current liabilities. So, we will not take this figure.

We will take the total of all assets. Let us try to calculate. So, in the denominator you want some total. So, we are going to take the net block plus capital WIP plus investments plus total current assets, loans and advances. This is just the total amount. This I will put in bracket. And in the numerator, what we want is capital employed? In the numerator, we want PBIT. So, now you can see. It is PBIT divided by total of all these assets.

We multiply by 100, because we want in percentage terms. So, you get 14 percent. Are you getting? This is slightly less than return on capital employed, because in capital employed also, it was PBIT in the numerator. But, we divided by the long term funds. Here, we are dividing it by the total of assets. So, in the current year it has improved slightly. It has become 16.55. So, again I will repeat the earlier remarks.

So, there is a very good return and it has improved further. I hope you are all getting me and agreeing to, what I am saying. Is it aware? Now, let us go to the next ratio, that is return on equity. Here, we are trying to link the profit to the owners fund. So, what should be the formula? In the numerator, now I will not take PBIT. I would rather take PAT or Profit After Tax and divide it by net worth. You know net worth is nothing but, the owners fund or equity, as it is called.

So, this is PAT. That is 387 divided by the total of net worth into 100. So, 15.46 percent, again it is a good return. The current year, it has increased slightly to 16 percent. Are you getting? So, 389 on the net worth. Now, why has this return? Though it is a very good return, you can see it is less than ROCE. Why has it fallen? From 19.34 to 15.46, you will observe that the denominator is more or less same. Capital employed and net worth, there is no difference.

But, numerator earlier was PBIT. Now, it is PAT. Since, company is paying some amount as taxes. PAT is lesser slightly than PBIT. Company does not have ant debt. So, capital employed and net worth are more or less same. But, the profit in the numerator has gone down now. That is why, there is slight less return. But, still it is a very good return, because 15.46 percent after taxes, does show an nifty return on owners funds. The next ratio is EPS or Earnings Per Share.

So, what is the formula for EPS? We essentially try to find, how much profit is available per share? So, in the numerator we take PAT, Profit After Tax which is the profit available to the owners and divide it by number of shares. So, number of shares actually

tell you, how many shares are there in the company? And we take the total profit and distribute it to per share to every share. So, you can take NPAT again and divide it by equity capital.

Now, exactly we do not know the number of share. But, if we assume that each share is of 1 rupee, whatever is a equity share capital same will remain the number of shares. So, we are dividing by equity share capital. If you know the number of shares, you will take that in the denominator. So, you can see more or less, it is same. If you go up, you will realize that capital has increased from 26 to 38. But, since company could increase its profit also, 389 to 543.

So, more or less in the same proportion, there is a increase in the profit as the number of shares have increased or the share capital has increased. So, more or less a same return. So, I cannot say whether, it is a good or bad. But, for every share of the company you will receive about 15 rupees of profit. That you get from EPS. Now, you look at the asset turn over. So, what is the formula for the assert turn over? This ratio tries to find, how efficiently the assets are being used?

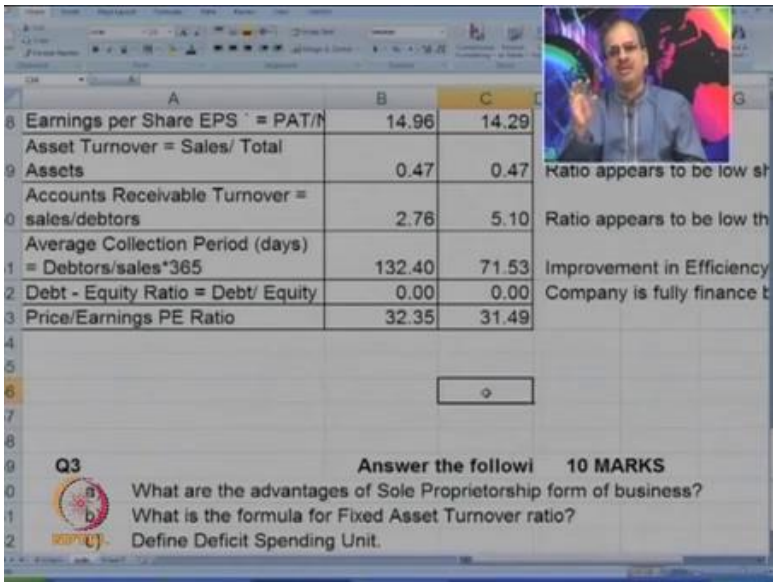
So, we will try to link sales to total assets. So, you already know the sale turnover, which is going to be the numerator for all turn over ratios. And we will look at the total assets. Now, in the last formula we had actually calculated the total assets. But, now we will have to recalculate it. So, total assets are going to include the net block plus capital WIP plus investment plus total current assets.

So, B 31 that is, sales divided by all these items ((Refer Time: 44:13)). So, you can see that, at total assets are above 3000, sales generated 1500. So, you get a ratio of 0.47, which is not a very high ratio. So, companies comparatively using large assets to generate lesser sales. But, since the profitability is very good, it is not bad. In the current year also, same ratio is maintain. Because, again as the sales have been increased, in the same proportion as asset, we get the same ratio.

So, it is not really a very good ratio. So, we will say ratio appears to be low, showing less efficient use of assets. So, if the ratio is more, it would have mean that, there is more efficient use of asset. Now, look at the accounts receivable turnover. So, here we try to link ((Refer Time: 45:29)) the sales to receivables or the debtors. So, sale is 1500 and debtors are almost 600. So, the ratio is two times. So, now, you get the ratio of 2.76.

If you see the current year, there is a significant improvement to 5. Why it has happen? ((Refer Time: 46:00)) Have a look at the balance sheet, you will realized that, company was able to reduce its debtors. Though, it could increase its sales that is, why the ratio of account receivable has nearly double. But, still it is not so high. So, I will say ratio appears to be low. Though, it has improved significantly because, you see a double growth in the ratio.

(Refer Slide Time: 46:52)



Now, let us look at the average collection period. When you look at both the ratios together, you will realize why I am saying it is not so high or it is low? What is a formula for average collection period? I just write the formula for debtors also. I think, for more clarity. So, in debtors turnover, it was sales upon debtors. That is accounts receivables. In case of collection period, we are going to do exactly reverse.

So, we will take debtors in the numerator and divided by sales and multiplied by 365. So, that we get it in turns of number of days ((Refer Time: 47:42)). So, it is sales, it is debtors upon sales turnover in to 365. So, you get it 132. So, what does it show? It shows that, in terms of number of days company, is giving a credit of 132 days. That is more than 4 months or you can say, it takes more than 4 months to collects its dues, which is not a very good sign.

That is, what was reflected in a low account receivable turnover? So, you will realize that, company needs to improve fast, its recovery. If you look at the current year, it has

significantly come down 71. So, it just more than 2 months, now. So, there is a good improvement in the efficiency of management of data's. Are you getting? Let us take the next ratio. That is debtor equity ratio. In the debtor equity ratio, we find the relationship between debt to equity.

So, debt that is browed funds. We divided it by equity or the owners fund. What will be the formula? Anyone can guess? It is going to be almost zero, because if you remember ((Refer Time: 49:33)) you know for this company debt is nearly zero versus the network. So, you can see how low it is. Current year is also going to be zero. What does it show? It shows that, company is fully financed by equity or by the owners fund.

So, it means that it has high long term solvency. Are you getting me, which is a good sign for the company? Now, the last ratio is PE ratio. What is a formula? As the name suggest, it tries to links price to earnings. If you go up, ((Refer Time: 50:29)) you will realize that market price is given. So, we will link that to the earnings. So, market price divided by earning per share, which we have already calculated. So, it gives 32 versus the current one is 31.

So, it is more or less stable. That shows the reputation of the company, which appears to be reasonably good. So, let us stop here. We have try to do, a select ratios for Patni computers. Next session, we will do one more problem. So, that you really understand the different uses of ratio analysis. Keep in mind is the one of the important tools for analyzing any financial statement and try to practice it, so that you can really get the insides into it.

Thank you so much. We will stop for the day.