Management of Commercial Banking
Professor Jitendra Mahakud
Department of Humanities and Social Sciences
Indian Institute of Technology Kharagpur
Lecture 36
Management of Leading Activities - 6

In the previous class we started the discussion on the different financial ratio analysis for the business units who are seeking the loans from the commercial banks. And commercial banks basically use the balance sheet and the income statements or profit loss account of the respective business units to evaluate their financial conditions. And accordingly they can decide that whether the loan should be given to those organizations or not.

So in this context we have discuss certain issues like your liquidity ratio, then you have also discussed about the efficiency ratios and as well as the marketability of that particular business, what this particular business unit is doing. And after that today we will be discussing about certain other financial issues which are also used to evaluate that particular commercial units who are seeking this particular type of loans.

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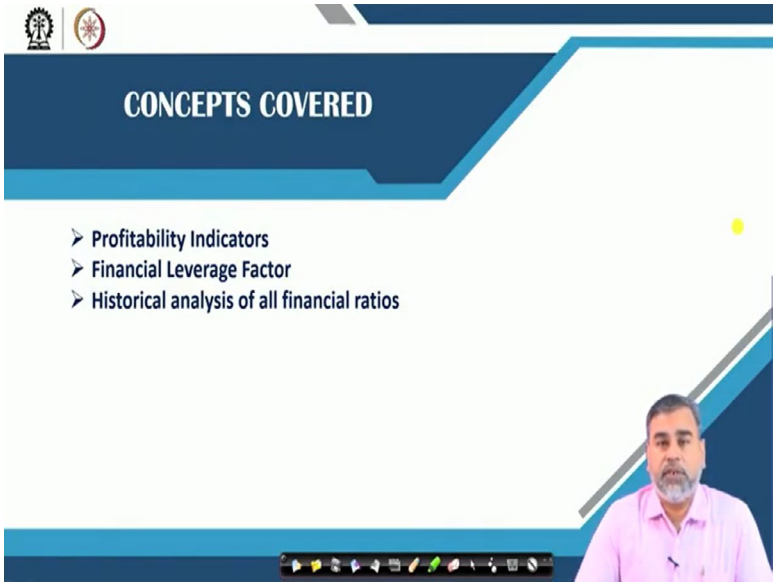

So those ratios basically includes the profitability indicators or the profitability ratios who are the major ratios to understand that whether this particular organization is doing financial well in the system or not. Then we have the financial leverage factor or leverage ratios and financial

leverage is quite important in the context because that measure the financial risk of the company. Or what is the probability that the particular bank is able to repay the loan or not, then what is the debt position of that particular bank; all those things are basically measured through the financial leverage ratio.

So we will be discussing more about the financial leverage factor. Then we take one example which gives you the idea that how basically the ratios are used to understand the financial position of the particular business units or the particular firm. And how the commercial banks are going to use that particular indicators or particular ratios to disburse the loans.

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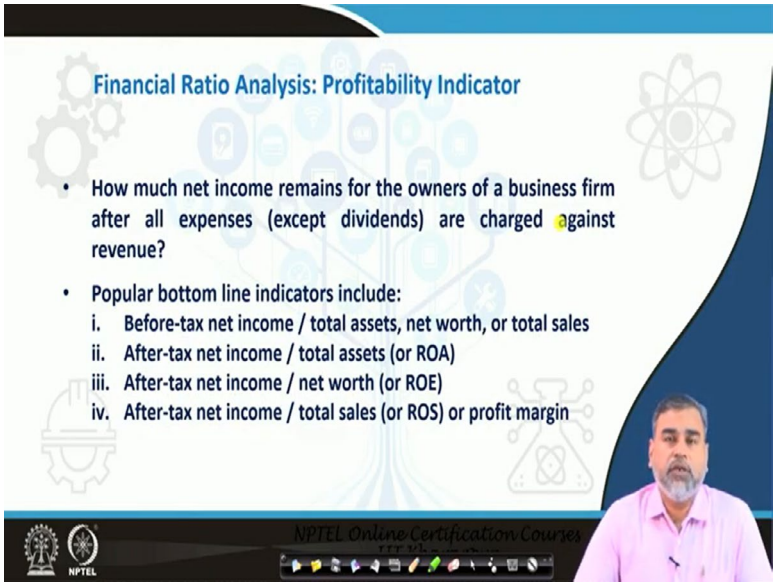

So let us start the discussion on the financial ratio. So whenever you talk about the profitability indicators, the profitability indicators is nothing but that, already all of you know that the particular organization gets an amount of profit after the cost what they are wearing for their particular business. Then after that what basically happens that they have to pay certain interest in all these things whatever loans they have taken.

Then as well as also they pay the tax and the remaining amount of money which is kept particularly the net income after-tax that is basically is nothing but the money which is available to the common shareholders. So that is the profit maximum net profit for this particular

commercial bank, a particular business unit is able to generate. So in that context here whenever in general sense we are going to use the different profitability indicators.

Where in profitability indicators basically can be related to equity, it can be related to the assets or it can be also related to the sales. So in this depending upon the stakeholder who are going to use that particular financial ratio or the profitability ratio, the ratios are basically used to evaluate the financial condition of that particular business firm. So in this context if you see the first one is basically what we can say that whenever we are measuring that net income after-tax divide by the total assets.

So that is basically popularly known as the return on assets that how this particular assets are utilized to generate that particular amount of profit. And that shows that how this particular bank, it is a very particular measure in terms of the profitability, so the return on assets is used mostly to understand that how much profit this particular company or particular firm is able to generate by utilizing those assets whatever they have.

Those assets may be include the fix assets and as well as the financial assets. So the financial assets includes the debt and equity and the fixed assets are basically lands, machinery and all kinds of other fixed assets for which the particular company is holding. Then we have another ratio which is net income after-tax upon the net worth. The net worth is basically nothing but the total assets minus total liabilities which is nothing but the owner's equity.

So, whatever the owner's equity is there that how much return on equity this particular company is able to generate that basically is another profitability ratio which is mostly used by the investors to understand that, what the position of that particular business unit in the financial system is. So whether this particular company is worthy for investing or not. So those things basically is always we check on the basis of the return on equity.

Then we have another ratio which is called profit margin which is always scaled by the total sales because sales is the source of revenue for any business units, so after-tax net income upon total sales that is basically is consider as the profit margin or the sales margin. So in this context we have 3 major performance indicators in terms of the profitability what the commercial banks

always try to use whenever they go to evaluate the financial positions of the any kind of business firm.

Then depending upon this they decide whether this particular firm credit worthiness is there, whether the firm is able to generate the required amount of cash flow in the future. If, or what is the probability of default we can generate out of the loans which are disbursed to this particular companies. So all those kind of analysis can be done if the profitability analysis of that particular firm can be carried out.

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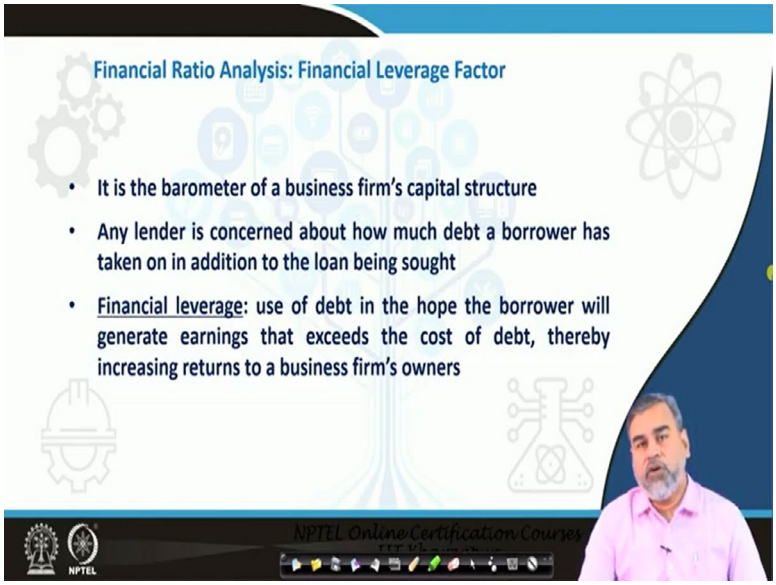

Then we are coming back to the financial leverage factor, all of you know that the leverage is very important issue for the commercial banking prospective. Whenever they go to evaluate the business units that whenever the banks basically evaluate the credit worthiness or the repayment capacity of a particular firm, they always look at how much existing debt the particular company has already.

So already all of you know that the debt is basically an indicator which gives that idea that whether the company is worthy enough or company is good enough to repay the loan or not. It gives certain kind of signal to the market sometimes from the investment point of view, sometimes the high leverage ratio companies are bad, sometimes also it is considered as good.

Then when it is considered as bad in the sense that already the company is exposed to more financial risk and because the debt has a component which is related to bankruptcy cost.

And if the bankruptcy cost is increasing then there is a probability of liquidation in the future. But otherwise the high leverage ratio can be used as a good indicator from the investment prospective, the reason is that if the bank is able to or bank is ready to pay the loan to that particular business unit then that means that this investor has always feels that because the bank is providing the loan to them that means the financial condition of that particular unit is relatively higher.

So in this context there is debate that whether the leverage is good or bad and there are many theories which talks about the relationship between the leverage and the total value of the firm. And how the leverage is going to affect the value of the equity holders or the shareholders, so whether the company should maintain a particular level of leverage ratio or not. So all kinds of debates are there as a part of the corporates finance literature, I hope all you must have heard about this thing.

It starts with the Modigliani Miller theorem, then we have trade-off theory, you have Pecking order theory, you have market timing theory, there are various theories which try to discuss that whether and how the particular debt equity ratio of a particular company is designed or company is determine. And whether the company should hold a particular level of debt equity ratio which can maximize its value. But here whenever the basically evaluates the company the bank basically sees that how much debt a borrower has already taken apart from the what he has asked for.

So depending upon the other factors if the commercial bank is realizing that this particular business unit has already existing amount of debt which is quite high. And in that context may be it will difficult for this particular units to capture or to adjust or to repay the more loans if they will consider or they will take in the future. So in this case what basically we say that the debt basically is kind of risk factor what we can say that whenever the bank decide this that whether the loan should be given on the basis of the debt or not.

So here the use of the debt in the hope that the borrower will generate the earnings that exceed the cost of debt and thereby increasing returns to business firm's owners. So that means whenever they get this particular loans from the banks the bank always try to look at how this particular loans or particular debt is going to be utilized by the commercial by the business units. So the business units are able to generate more return out of the cost what they are enquiring against that particular debt then it will be easier for them to repay the loan in an appropriate time or the stipulated time.

But sometimes what happens that either because of the lack of opportunity in the market or because of any decisions which is taken by the managers is faulty. Sometimes the return generation from that use of the particular debt is relatively lesser than the cost what they are enquiring. In that particular point of time may be the particular business firms are not able to repay that particular loan in a proper scheduled time period. And automatically that becomes a problem or becomes a hassle for the commercials banks to recover the loan from them.

So in this context a historical through analysis is required to understand how that particular debt is going to be utilized. So if you remember that whenever any kind of business units of the potential to invest in the market and let there are two projects are available, one project is highly risky and another project is less risky. And as you know that the risk return trade-off concept that if the risk is more than probability of return will be also higher. But in that context let there is a high risk but the probability of return also higher but there is probability that the return may be 0.

In other case there is pure chance of 100 percent probability is there, you can generate certain amount of return but which is not very high in comparison to the other projects. Sometimes because of this stakeholders interest, the managers basically or equity holder's interest what we can say. The managers can go for a risky project, so if the project clicks it is fine, where the return will be quite high. In that context they can repay the loan to the bank and as well as they can also increase the value of the shareholder's objective.

But sometimes what happens if the project fails then obviously the shareholder also incurs the loss but the reason is that shareholders are ready to incur the loss, the reason is basically the return is higher they can also get more return. But in the leave of days what basically we have

observed that the interest payments what the particular companies are supposed to provide to the commercial banks that also get disturbed.

So in that particular point of time what basically happens that the risk of the commercial bank increases or the NPA level of the commercial bank increases. So keeping those things in the mind the historical analysis of that particular business unit is very much required or always the commercial bank carry out to understand that how this particular loans are going to be utilize, whether the rate of return what they can generate out of this loans will be more than the cost what basically they are incurring in terms of the payments of the interest.

So if the revenue or the benefits will be more than the cost what they are going to incur then obviously that will be a lucrative kind of investment opportunity what this business units can create, and by that they can fulfil the conditions of the commercial bank in terms of payment of the loan and including principle and as well as the interest. So that is why this leverage factors are quite important.

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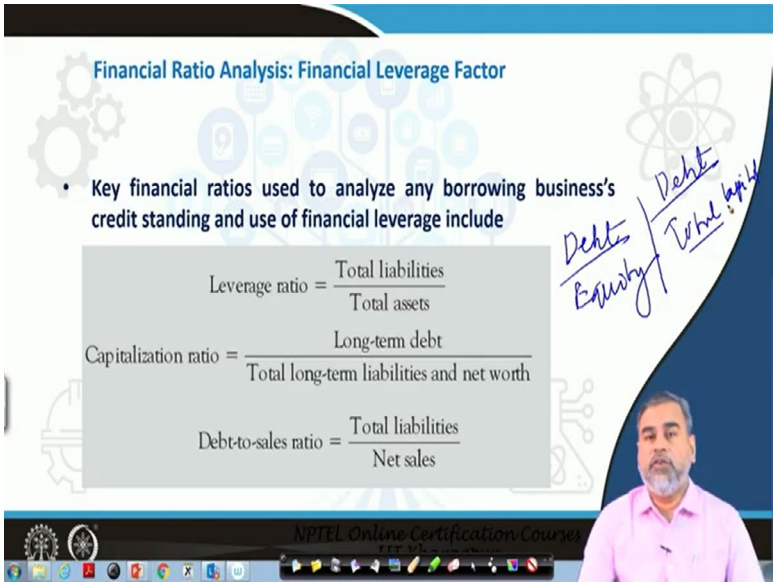

Then how this leverage ratios are measured that there are many ratios which are used in the market as a proxy for the leverage ratio or the capital structure ratio. So one of them is total liabilities to the total assets that is called the leverage ratio. We have a ratio called capitalization

ratio, which is long term debt / the total long term liabilities and the net worth. And you can also have total liabilities upon the net sales that is called the debt to sales ratio.

But popularly if you see in most of the cases we also use the debt by, total debt by total equity that is another ratio we can also use. Or you can also use debt / the total capital. The total capital includes your total debt + total equity or sometimes people also use interest coverage ratio as a proxy for the leverage but this is not quite popular in the context of the measurement of the financial leverage ratio of a particular company.

So in this context what basically what we can say, if the leverage ratio is higher, then it is relatively risky for the commercial banks to provide more loan further. But again you can link those things to the market conditions. If really the market condition is good then high leverage ratio is not bad for the company because company will have enough opportunity to utilize that particular loan in the market to generate the adequate amount of return to repay that particular loan.

But if the market condition is not very conducive and the investment opportunities are not that way very much prominent in that particular time period, then it is very risky if a company is maintaining a high leverage ratio and further they are demanding the loans then the banks may be reluctant to provide the loan to those kind of business if already they have high leverage with them.

So this is the way the financial leverage factor is considered whenever the loan assessment or loan application assessment is made by the commercial banks or any lender whenever they provide any kind of loans to them.

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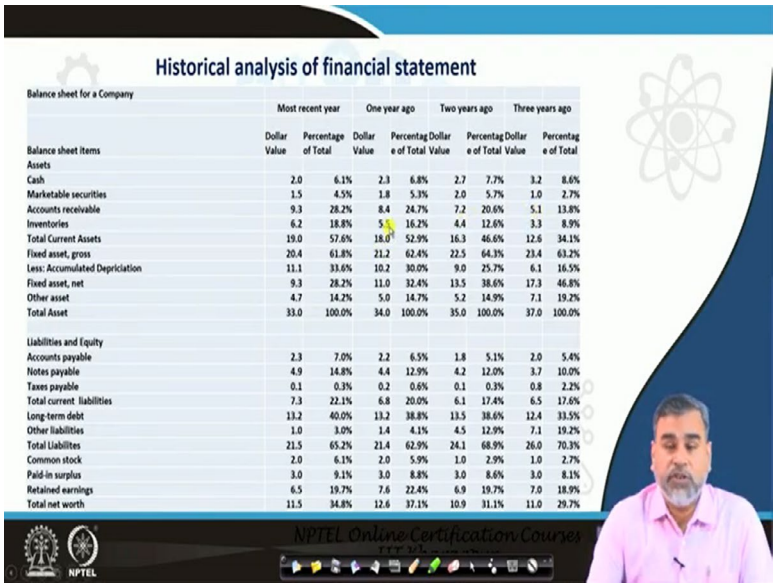

Then if you see or considering all those things we can take one hypothetical example then how this interpretation can be made. This is a hypothetical balance sheet of a particular business unit and of a particular company. So here already you know that, how the balance sheet looks like for a particular company. So here we have in the balance sheet case we have the assets, we have the liabilities.

And in the asset case we have the cash, we have the investments like marketable securities, you have the short term investments assets like accounts receivables, you have inventories, then if you add all these things then you can get the current inventories for total current assets, cash plus marketable securities for amounts receivable plus inventories. Then you have the long term assets like fixed assets, then we have the, you can minus it the depreciation from this, then you have the net fixed assets you can get it from gross fixed assets minus depreciation.

Then you have some other miscellaneous asset what the company is holding, it includes all type of furniture, it includes all type of fixed assets but that may not be that way utilized for getting the return but still they are considered as the asset for this particular company. Then we can come to the liability side, in the liability side we have accounts payable, in the asset side we have account receivables which are short term in nature.

In Indian context we call this two names Sundry debtors and Sundry creditors in the balance sheet of a commercial bank. Then we have the notes payable, tax payable, then we have the total current liabilities what you can calculate. Then we can have what is that long term debt, we have the total liabilities, we have the common stock like equity, then you have paid in surplus, return earnings and net worth. So these are all type of balance sheet items what you can consider from this.

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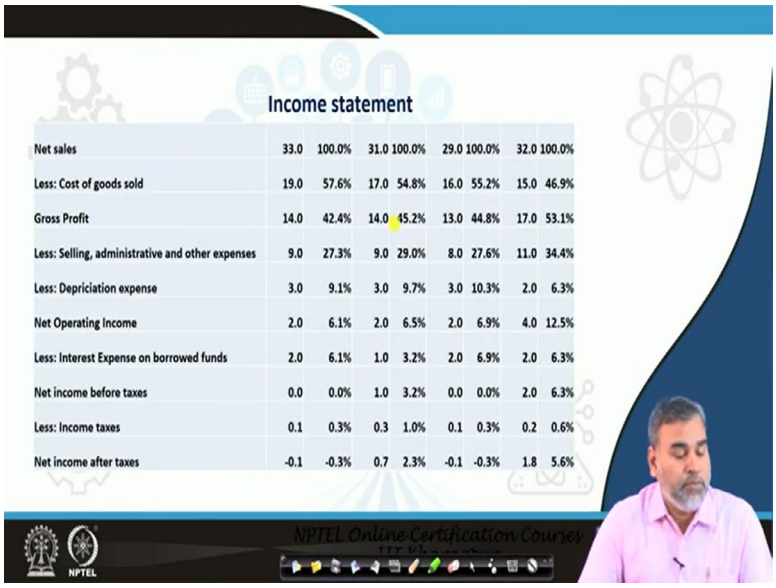

And using this balance sheet items if you want to analyze that how this particular ratios are calculated and how to interpret those ratios. Before that we can also look at the income statement of this particular company, net sales then you can minus your cost of good solds, then gross profit you can calculate from this.

Then we have also exclude the selling administrative and other expenses from this. You can also deduct the depreciation expenses, you can get the net operating income after this. Then you can also exclude this net expenses on borrowed funds because interest payments you have to make. Then finally you can find out the net income before the taxes, in this case it is 0 in 1 year.

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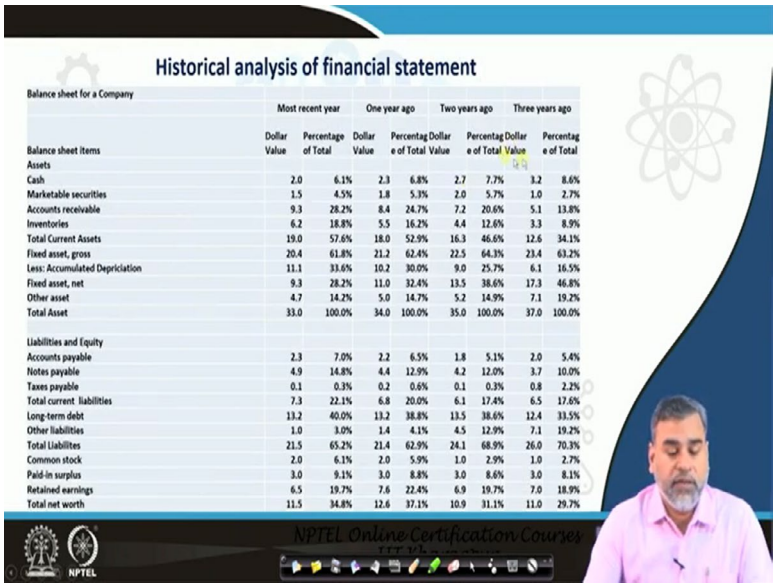

So I wanted to tell one thing, that this is the data which is for 3 years analysis because always the banks go for a historical analysis for analyzing this financial data or financial ratios. With this 3 years ago, 2 years ago, 1 year ago and this is the most recent year's data. The 1 year ago what was the data and 2 years ago what is the data. So if you see that 1 year ago total recent year the total asset value is 33. But whenever it is 1 year ago it was 34, 2 year ago 35, 3 years ago 37. So there is a clear declining in this total assets value.

So if you also observe that in terms of net worth it was 11.5 in the current year, but there is no such trend or pattern is followed in terms of the net worth. 3 years ago it was 11, then again 2 years ago 10.9, then 1 year ago it has increased to 12.6. Then again in the recent year it has become 11.5. So in that context we can further go for using these ratios or using these data to find out the different ratios.

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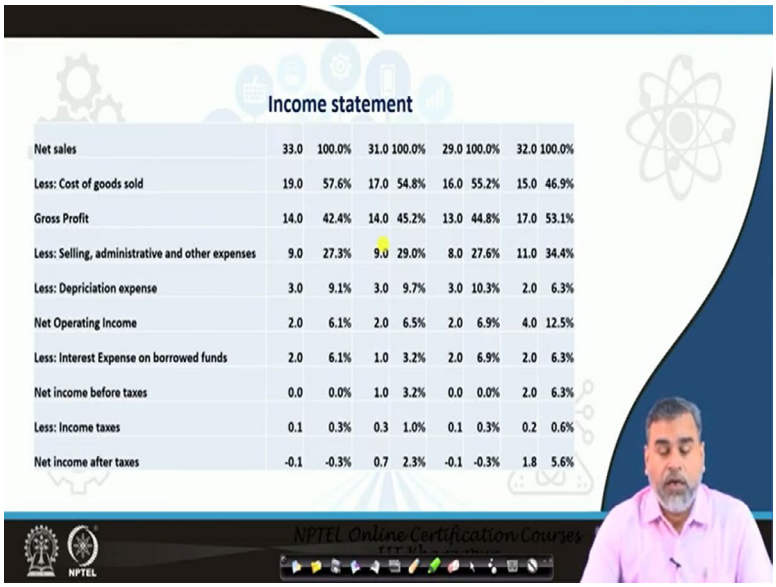

Then you have income statement like this but here in this case if you see in the current year the net income after-tax is minus that means it is negative and here 1 year ago it was 0.7 it was positive, 2 years it was negative, then 3 years ago it was relatively higher that is 1.8. So this is the way the financial statement or the income statement of financial, balance sheet and the income statements are shown, then we can now see that how those particular ratios are calculated from this particular data and how to interpret those particular ratios.

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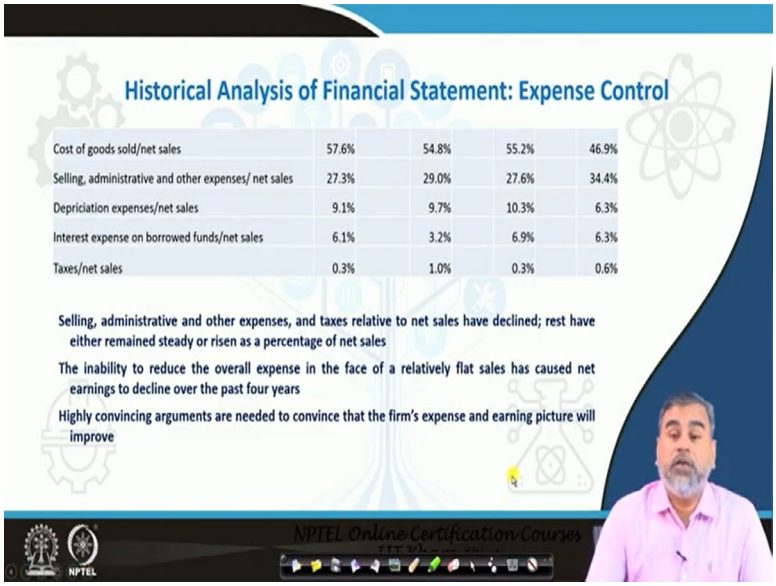

So first of all, if you remember in the previous class we discussed about the expense control, and expense control is basically nothing but that is measured through the cost of good solds upon the net sales. The selling administrative and other expenses, depreciation expenses to net sales, interest, expenses on upon net sales and taxes upon net sales. These are the ratios which are used to evaluate that how the particular bank is able to control their expenses.

So if you observe that overall from this particular data analysis if you want to interpret this particular data what basically summary you can get it that selling and administrative and other expenses and taxes relative to net sales of decline and rest of either remains steady or risen over as a percentage of the net sales over the time.

So what it basically implies in this case? It implies that in case of this particular banks the inability to reduce the overall expenses in the face of a relatively flat sales because sales figure is not that way very much fluctuating has caused the net earnings to decline over the past 4 years. So because the sales is not increasing but the overall expenses that is why it is very difficult to reduce by this particular business unit, because they are not able to increase their sales income in a larger extent.

So because if you see that your flat sales is the one of the reasons that why they are not able to control their expenses because the expenses more or less is always, we can expense control is always related to the ratio with respect to the sales. Then here the question is that, the firm's

expense and earning picture may improve but the question is that looking at this figure that more or less this particular company is not able to control the expenses in that sense and either they are not able to control their expenses nor they are able to increase the sales.

So then it becomes a question mark for the commercial bank whether the loan should be paid to them or not or if it will be paid then how the pricing of this loan will be made.

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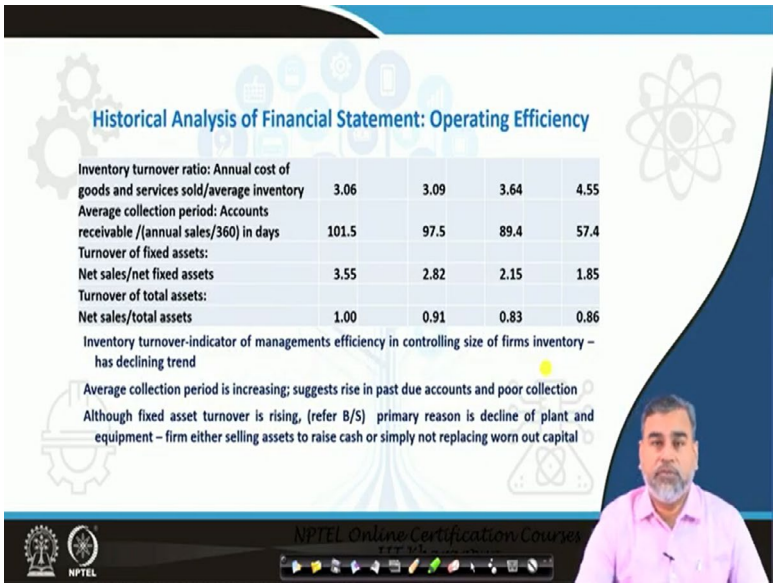

Then the next ratio we have the operating efficiency which is very important in terms of the financial ratio analysis for any kind of business units. So if you look at this, we have the inventory turnover ratio, we have the average collection period, we have the turnover of the fixed assets in terms of net sales upon net fixed asset, turnover of total asset if you see the net sales upon the total assets.

So these are net sales upon total assets, net sales upon net fixed assets, then you have the collection period, then you have the inventory turnover ratio. So these are the major ratios which are used to measure the operating efficiency of that particular firm. So looking at this particular analysis which was given we will find that, the inventory turnover indicator of the efficiency ratio in controlling the size of the firms inventory has declining trend, because 4.55 to it has declined to 3.06.

Then the average collection period is increasing, suggest that in the past, rise in the past due accounts and poor collection the bank is not efficient enough to collect this receivable so whatever they have. Because the average collection period is increasing for them. That means this particular banks short term financial position is not that way very good. Then the fixed asset turnover is also rising if you see that the primary reason is the decline of the plant and equipment from either selling the assets to raise the cash or simply not replacing the worn out the capital.

Because the capitals whenever you talk about the fixed asset turnover, the fixed asset turnover is basically nothing but how this particular assets are utilized to generate this income sales income for this particular company. But whenever we are talking about this, you have seen that the net fixed asset turnover is rising, the net fixed turnover is rising in the sense either what we can say that the net sales is increasing or the net fixed asset is declining.

But we have seen that the net sales is not increasing, net sales is more or less flat and here the fixed assets whatever we have that may be declining. Then why basically that means it is not a good sign that we are reducing our fixed assets and more or less the net sales is basically remain constant. So here in this case what basically we can conclude why the fixed assets are declining?

The fixed assets are declining either this particular company has sold those particular assets to generate certain kind of cash to fulfil the certain kind of short term requirements or there are some kind of asset which is already not in the working condition and the particular companies not utilized those assets for production or may be generating the revenue.

So in that context it is very much worrisome matter that the particular amount, if the numerator is increasing that is fine that means sales is increasing. But in this case what we have observed in the previous case are the data, what the data shows there more or less this total sales income of the company is flat among the 4 years. It only varies from 37 to 33. So in that context what basically we can conclude that the efficient, the operating efficiency of the companies is not good enough to conclude that the efficiency of the company in terms of the financial positions are quite strong.

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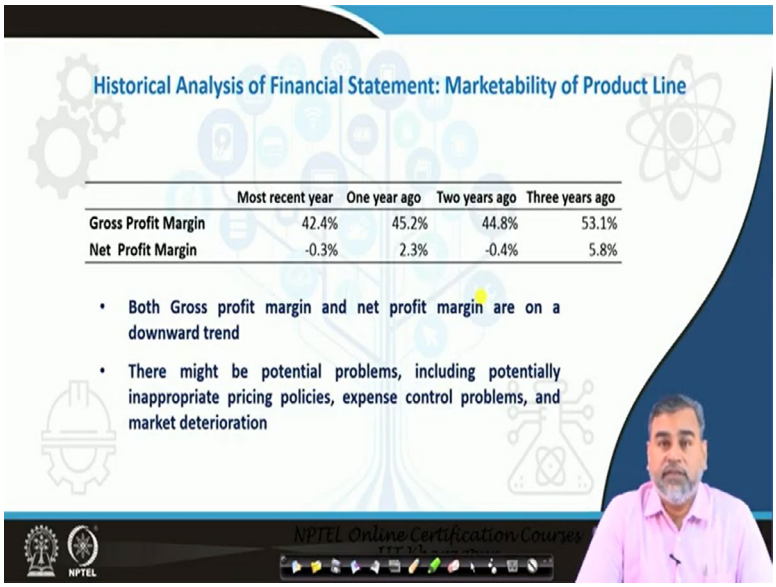

Then we have the marketability of the product line which is measured through the gross profit margin and the net profit margin. The gross profit margin and the net profit margin are on a downward trend which is also not good for the company. So there might be potential problems including the potentially inappropriate pricing policies, the expense control problems and market deterioration. So either of these factors are responsible for this but again the lending institution should look at this things in a very serious way to that whether the marketability to the product line is in the good shape for that particular business unit or not.

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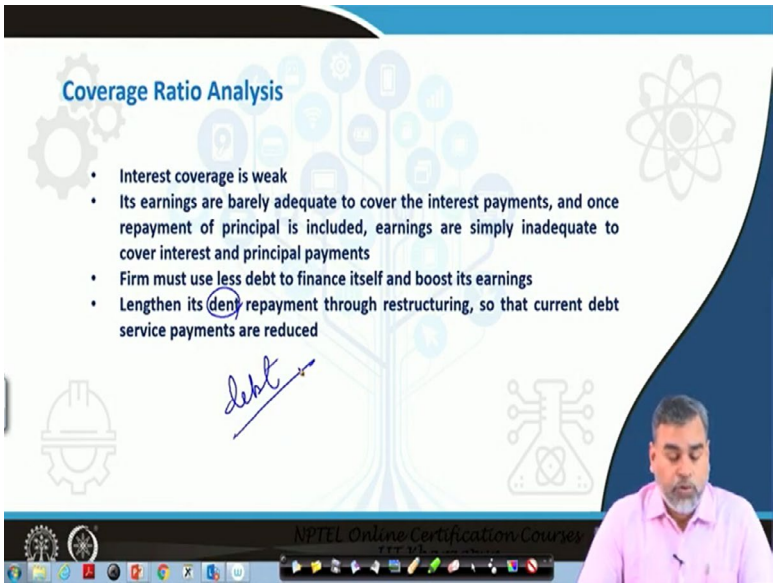

The coverage ratio whenever the interest payments of or the total net income after-tax divide by the interest payments whenever we have measured what we find that the interest coverage ratio is very weak, it is not very good in this case. And this earnings are barely adequate to cover the interest payments and once the repayment of principle is included, earnings are simply inadequate to cover the interest and the principle payments for this particular company.

And in that particular time the firms must use the less debt to finance itself and boost its earnings. So if still they are not able to repay the interest whatever loans they have already then it is not advisable for this particular business units to go for more loans because again the interest rate burden will be increasing for them, or it is not also the advisable for the lending institutions to provide the loan to them.

It is also lengthen, it is basically your debt repayment period is increasing through the restructuring of the loan, so that the current debts service payments are also reduced. So in that context what basically we are trying to say that the coverage ratio or the coverage ratio conditions or the interest coverage ratio conditions of this particular unit is also not in the good shape. So because of that may be the lender's point of view if you consider it is not advisable for the lending institutions to provide the loans.

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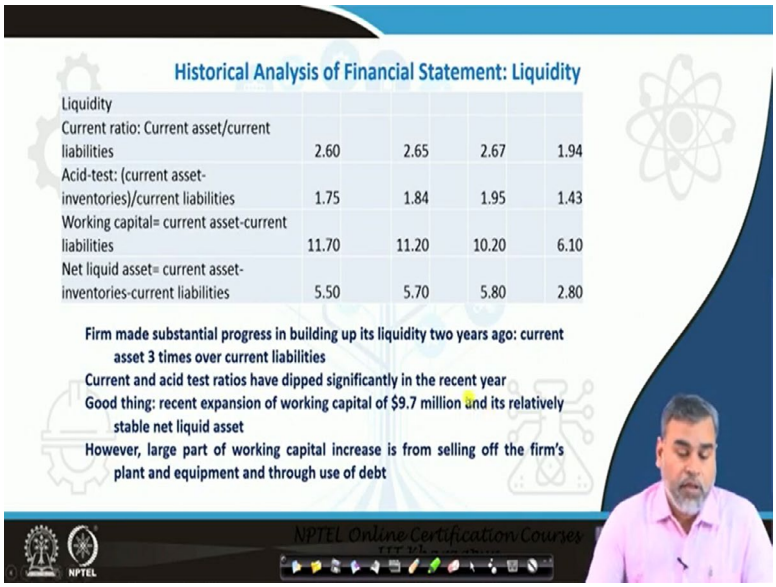

Then we can come to the liquidity, so if you look at the liquidity ratio is like your current ratio, acid-test ratio, working capital, and the net liquid asset, all kinds of things whenever we have considered we find that the firm made substantial progress in building up the liquidity in 2 years ago. The current assets the 3 times over the current liabilities, current and acid-test ratios are declined or dipped significantly in the recent year.

But another good thing is the recent expansion of working capital of 9.7 Million and it is relatively stable, net liquid assets. However the large part of the working capital increase in form of selling of the firm's plant and equipment and through the use of the debt. So again that is also a worrisome matter because the working capital financing what the particular company is doing that is the selling of the firm's plant and equipment.

So that is not going to give a good signal to the lender that, this particular company is really good enough to make this particular liquidity position in a better way by that the probability of cash crunch problem or cash crunch to that particular company is not going to happen.

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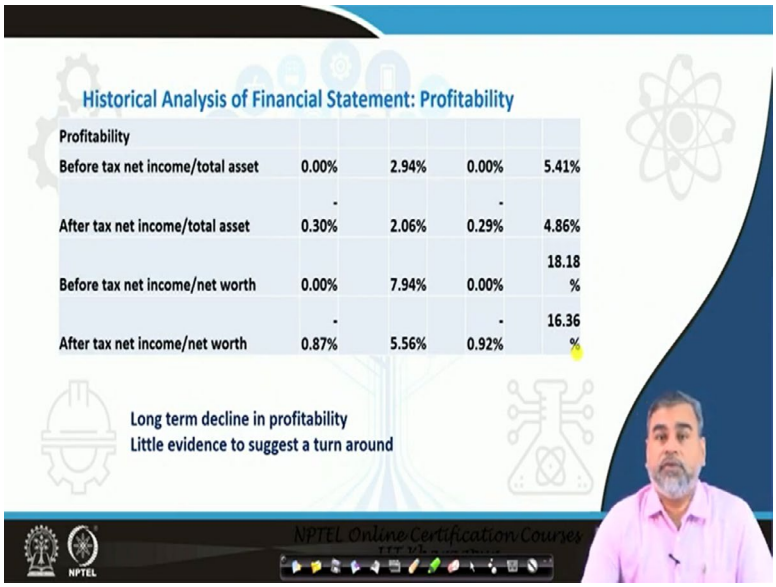

Then we have the profitability just now whatever we have discussed there is a profitability decline and there is a little evidence to suggest that this particular thing is going to be changed. So in that context the profitability condition of this particular unit is also not good enough to conclude that this particular company is in a good shape to get the loan further because already this company has lot of financial difficulties and the company has to improve those financial difficulties in terms of the efficiency, in terms of the profitability in terms of liquidity in terms of the marketability.

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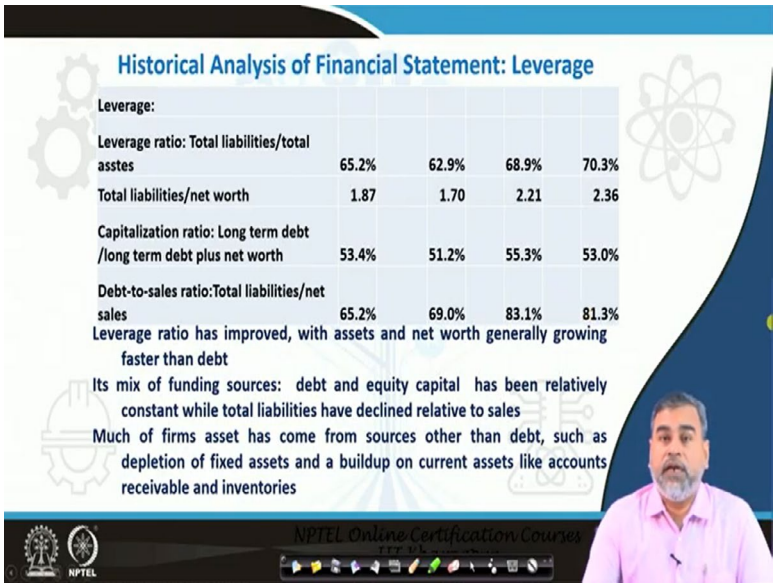

Then we have also seen the leverage, the leverage ratio is little bit improved, it was declined from 70 percent to 65 percent with assets and net worth generally growing faster than the debt. That is why it is declining, because the denominator is increasing and numerator is more or less same. So debt and equity capital has been relatively constant while liabilities have declined relative to the sales.

And much of the assets has come from the other sources other than debt, such as the depletion of the fixed assets just now we have seen and the buildup on current asset like accounts receivable and the inventories. So in that context, what we have seen? The debt is not going to be changed or the debt amount is not going to be changed or it is not changing.

But because of change in the other factors which are like total assets or total fixed assets and all, then there is some kind of fluctuations in terms of the financial leverage. But that is also not in a very impressive way to conclude that the stability or the financial risk of that particular company is relatively low and because of that they are worthy enough to get the more loans from then lenders.

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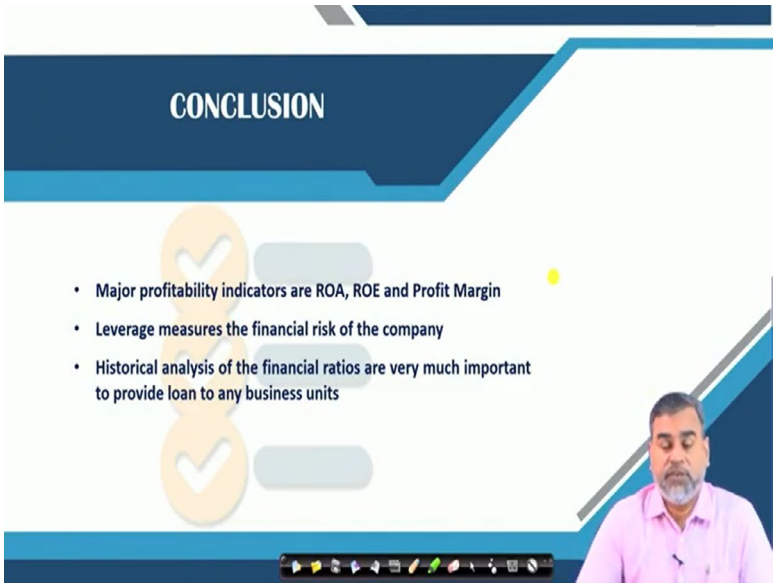

So these are the different ratios what basically we use. So apart from the other ratios what we have discussed in the previous session, the profitability indicators like ROA, ROE, Profit Margin all these things we use for analyzing the profitability of the company, while assessing the loan. The leverage measure the financial risk and that is basically measured through the debt equity ratio, the total debt to total capital, then total liability, total assets and all these things.

And that basically shows that whether the firm is in a position to repay the loan it stipulated time or not. And historical analysis of the financial ratios are very much important because over the time we have to understand only current period analysis will not help, we have to analyze a reasonably 3 to 5 years data to understand that the sustainability of that particular figure so over the time for this business units whenever the loan assessment is made.

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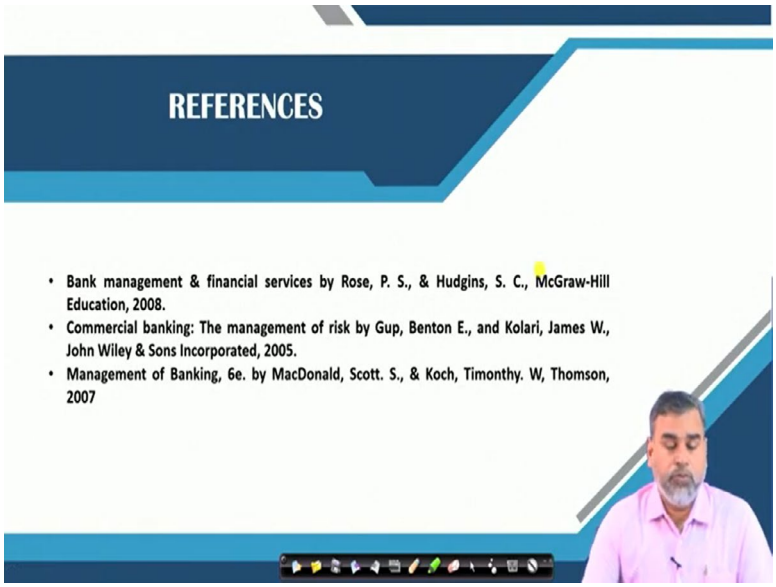

So these are the references what you can go through further detailed analysis. Thank you.