

Managerial Accounting
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Lecture - 15
Financial Statements Analysis

Dear students, in our last two sessions, we have been discussing about Analysis of Financial Statements. Today, we will see some more cases to bring out more clarity in your minds. As you all know, financial statements depict the basic information about the entity. Do you remember, what are the major financial statements? One is profit and loss account, it gives you the position of profitability, stating the incomes and expenses during a particular period.

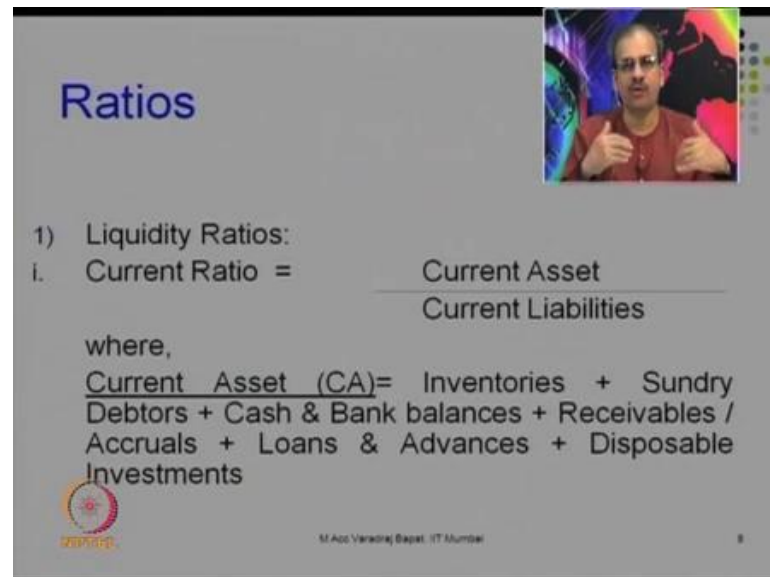
The second important statement is balance sheet. Balance sheet lists out assets and liabilities and provides the financial position as on a particular day. The third important statement is cash flow statement. In cash flow statement, we deal with the inflows and outflows of cash, which are categorized into operating flows, investing flows and financing flows. In this particular module, we are trying to go a next step ahead, in a sense that the data as is provided by financial statement is now being analyzed.

And the analyzed data will be useful will be used for drawing out some conclusions. There are various stake holders for example, owners may be interested in profitability. Bankers may be interested in knowing whether they will receive their interests. Creditors may be interested in knowing whether there payments will be received in time. Like that, from the view point of various stake holders, we have to gather the relevant data from the financial statement. And that could be defined as analysis of financial statement.

In this particular module, we are going to see some more cases. Last time, we have seen one case on ratios. Let us, today look at two more cases involving all the three types of analysis horizontal, vertical as well as ratios. I hope you remember now what are the types of ratios? In our last session, we have discussed the various types of ratios, which include the ratios of profitability, the ratios which are related to return.

And also the ratios which tell you about liquidity and long term solvency are the capital structure. Now let us go to the cases of course before going to the cases you should have clarity about how to calculate those ratios?

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The slide is titled "Ratios" in blue text. In the top right corner, there is a small video inset showing a man with glasses and a red shirt speaking. The main content of the slide is as follows:

1) Liquidity Ratios:
i. Current Ratio = $\frac{\text{Current Asset}}{\text{Current Liabilities}}$

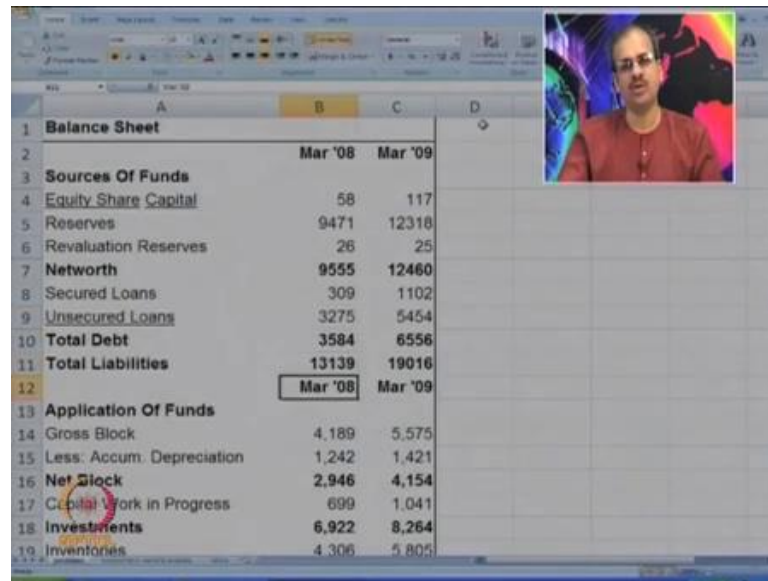
where,
 $\text{Current Asset (CA)} = \text{Inventories} + \text{Sundry Debtors} + \text{Cash \& Bank balances} + \text{Receivables} / \text{Accruals} + \text{Loans \& Advances} + \text{Disposable Investments}$

At the bottom left, there is a small circular logo with a red and yellow design. At the bottom center, there is small text that reads "M. Acc. Vardraj Bapat, IT Number". At the bottom right, there is a small number "8".

If you have still not learnt them, I will advise you to look at the various formulas. For example, here you have been shown there is a liquidity ratios. The most popular ratio is the current ratio, the formula is current assets upon current liabilities. Now, I will not repeat all the ratios, we have learnt about 15, 16 ratios in our last session. Actually, there can be 100s of ratios. Because, ratio is essentially a relationship between one item verses another item.

So, you can link any item to any other item. But, there are certain ratios, which are important. Like in profitability there is net profit ratio, in return ratio there is ROI that is Return on Investment or ROCE. So, it is very important that we calculate ratios and then compare them with the ratios of the same entities in the last year or earlier years. Or you may compare with other companies or you may compare with industry averages.

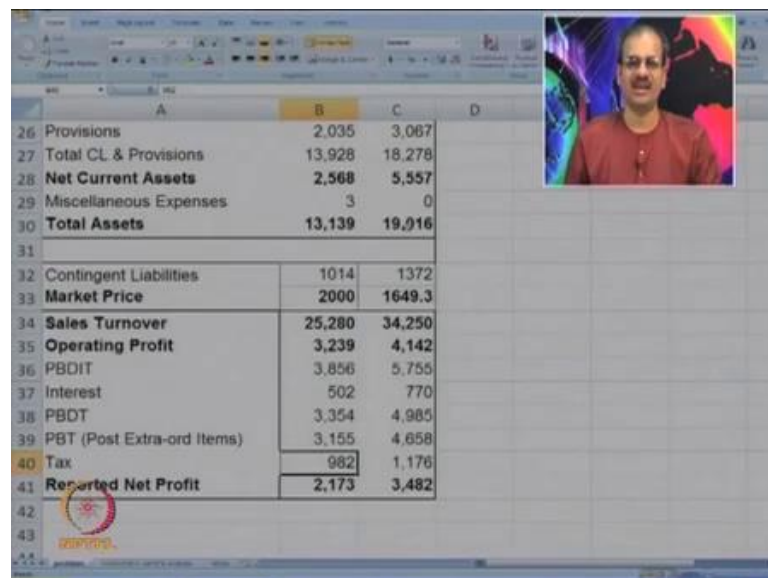
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	Mar '08	Mar '09
Balance Sheet		
Sources Of Funds		
Equity Share Capital	58	117
Reserves	9471	12318
Revaluation Reserves	26	25
Networth	9555	12460
Secured Loans	309	1102
Unsecured Loans	3275	5454
Total Debt	3584	6556
Total Liabilities	13139	19016
	Mar '08	Mar '09
Application Of Funds		
Gross Block	4,189	5,575
Less: Accum. Depreciation	1,242	1,421
Net Block	2,946	4,154
Capital Work in Progress	699	1,041
Investments	6,922	8,264
Inventories	4,306	5,805

Today we are going to look at, a particular balance sheet and P and L account, as you can see here. Have a look at the balance sheet first. Here, you can see that the company has accumulated lot of results. You can see equity share capital is 58 verses reserves of 9471 results are further increased to 12318. So, you can see, there is also good amount of loans, though they are not much in relation to the owner's funds. But, company has also taken some loans.

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Provisions	2,035	3,067
Total CL & Provisions	13,928	18,278
Net Current Assets	2,568	5,557
Miscellaneous Expenses	3	0
Total Assets	13,139	19,016
Contingent Liabilities	1014	1372
Market Price	2000	1649.3
Sales Turnover	25,280	34,250
Operating Profit	3,239	4,142
PBDIT	3,856	5,755
Interest	502	770
PBDT	3,354	4,985
PBT (Post Extra-ord Items)	3,155	4,658
Tax	982	1,176
Reported Net Profit	2,173	3,482

Then, you can look at the gross block of the company net block, investments, current assets, liabilities. If we go down, you can see there is also some data about profit and loss account, though you have not listed the whole of P and L account for want of space. But, certain important items like sales turnover, operating profit, PBIT etcetera are listed. I hope everything is clear.

Now, with this will try to do all the three types of analysis. First let us, start with horizontal analysis, then will do vertical analysis followed by ratios. I hope you remember exactly what is to be done ((Refer Time: 05:29)). Please try to solve it along with me, so that you can make most of it. Now, here in the next sheet the same balance sheet is repeated, we have to first start with horizontal analysis.

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	Mar '08	Mar '09	Absolute % Change	
Sources Of Funds				
Equity Share Capital	58	117	59	102
Reserves	9471	12318	2847	30
Revaluation Reserves	26	25	-1	-4
Networth	9555	12460	2905	30
Secured Loans	309	1102	793	257
Unsecured Loans	3275	5454	2179	67
Total Debt	3584	6556	2972	83
Total Sources	13139	19016	5877	45
	Mar '08	Mar '09		
Application Of Funds				
Gross Block	4,189	5,575		
Less: Accum. Depreciation	1,242	1,421		
Net Block	2,946	4,154		
Capital Work in Progress	699	1,041		
Investments	6,922	8,264		

So, anyone can guess now exactly what is to be done in horizontal analysis, which is the statement that is made in horizontal analysis, anyone can tell me? In horizontal analysis we make a comparative balance sheet or a comparative P and L account. So, let us make a comparative statement. So, we have a comparative balance sheet. Now, also try to remember exactly what is done in a comparative balance sheet. Do you remember? Your right, we try to compare the 2 years as the name suggest.

So, we will compare and find the difference, next what do we do? Your right, we find absolute difference and we also find relative or percentage change. So, here you have a absolute change and in the next column we are going to have percentage change. So, in

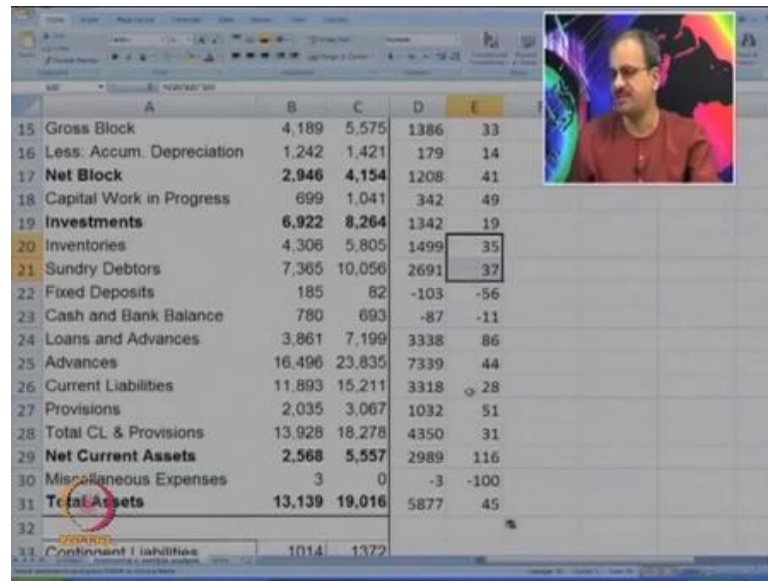
percentage change we try to calculate the change with respect to the base years figures. This is the data for March 2089 for a real company. I am not going to tell, what is the name of the company?

I request you to guess, if you have some knowledge about different businesses you can guess. Towards the end I will tell you exactly which company we were referring to. So, you can see that, each of the items there is some change. So, the equity capital has nearly doubled from 58 to 117. So, absolute change is 117 minus 58, so it is a 59 is a change. If you drag it down, then for all these years you will realize that most of the items have increased except revaluation risers.

You can also see that, just rename this, this is total sources. You can a not really understanding exactly whether the difference is much more or less, it is better to find in percentage terms. So will relate this 59 as a factor of the base here, so you get 102. So I hope you are getting what we are trying to do. So, if in percentage term, if you see you will realize that equality capitalized increase by 102 percent. That it has is more or less double reserves have increased by above 30 percent.

Secured loans have increased significantly, they have increased by 257 percent. So, though in number in absolute number it is 793 does not look that big If you look in percentage terms you will realize that company has almost thribbled it is secured loans. That is why it has been increased by 257 percent; unsecured loans have also increased by 67 percent. On the whole, the debt have increased more debt have increased by 83 percent, where has network that is owner fund have increased by 30 percent. I hope you are getting me. So, overall the total resources have increased by 45 percent.

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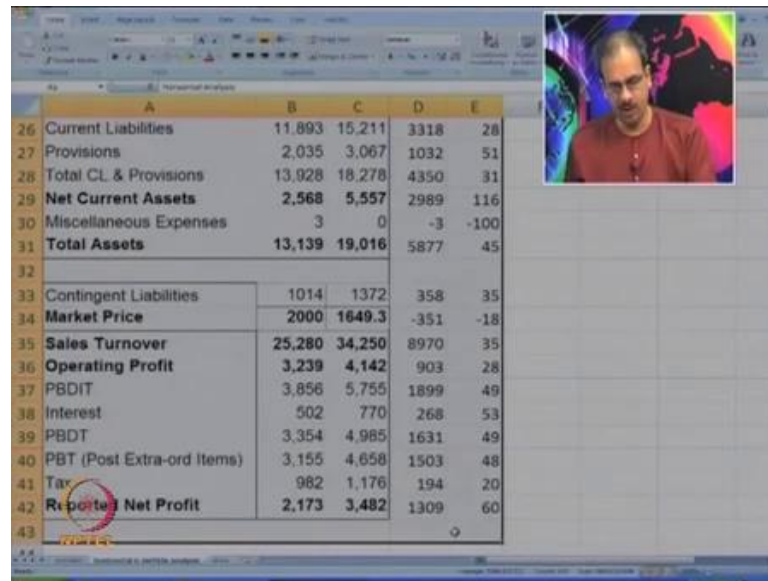
The image shows a screenshot of a financial statement spreadsheet. The spreadsheet has columns labeled A through E. The rows represent various financial items, with values for two periods (Year 1 and Year 2) and their respective percentage changes. A video inset in the top right corner shows a man in a red shirt speaking.

	B	C	D	E
15 Gross Block	4,189	5,575	1386	33
16 Less: Accum. Depreciation	1,242	1,421	179	14
17 Net Block	2,946	4,154	1208	41
18 Capital Work in Progress	699	1,041	342	49
19 Investments	6,922	8,264	1342	19
20 Inventories	4,306	5,805	1499	35
21 Sundry Debtors	7,365	10,056	2691	37
22 Fixed Deposits	185	82	-103	-56
23 Cash and Bank Balance	780	693	-87	-11
24 Loans and Advances	3,861	7,199	3338	86
25 Advances	16,496	23,835	7339	44
26 Current Liabilities	11,893	15,211	3318	28
27 Provisions	2,035	3,067	1032	51
28 Total CL & Provisions	13,928	18,278	4350	31
29 Net Current Assets	2,568	5,557	2989	116
30 Miscellaneous Expenses	3	0	-3	-100
31 Total Assets	13,139	19,016	5877	45
32				
33 Continant Liabilities	1014	1372		

Now, the same thing we try to do for calculations of assets. So, now, it was simple I have copied and we have calculated the absolute differences between the 2 years and also the percentage change. So, what do you observe now? You can see, that gross block has been increased by 33 percent, which shows that there is a lot of addition of assets during the year.

Further the capital WIP has increased by 49 percent, which is a good sign which also shows that company has a good amount of a feature expansion plants. These are the assets under construction they have also increased. Fixed deposits you can see have gone down, may be the company has used that money for some investments. Another item, which has increased significantly is loans and advances 86 percent, which is not a very good sign, because current assets are usually non returning assets. So, it has not considered a very good sign, but company has a kept the increase in inventory and daters about 35 percent.

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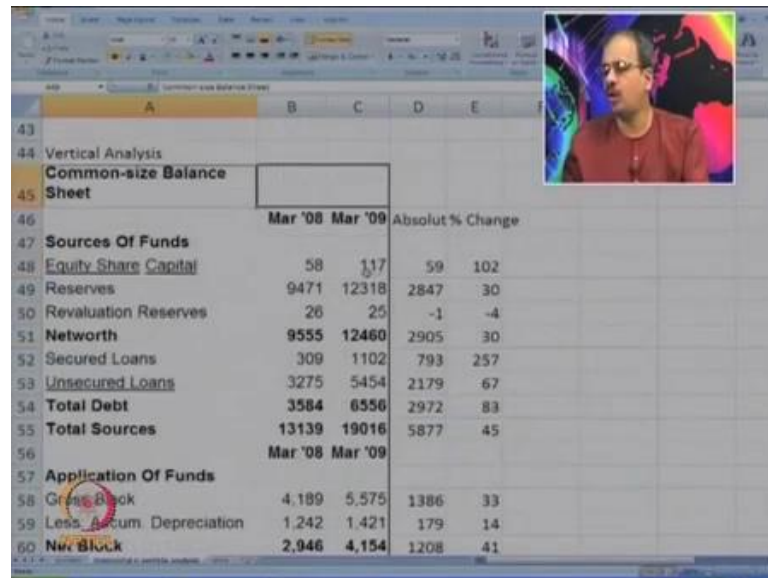
	A	B	C	D	E
26 Current Liabilities		11,893	15,211	3318	28
27 Provisions		2,035	3,067	1032	51
28 Total CL & Provisions		13,928	18,278	4350	31
29 Net Current Assets		2,568	5,557	2989	116
30 Miscellaneous Expenses		3	0	-3	-100
31 Total Assets		13,139	19,016	5877	45
32					
33 Contingent Liabilities		1014	1372	358	35
34 Market Price		2000	1649.3	-351	-18
35 Sales Turnover		25,280	34,250	8970	35
36 Operating Profit		3,239	4,142	903	28
37 PBDIT		3,856	5,755	1899	49
38 Interest		502	770	268	53
39 PBDT		3,354	4,985	1631	49
40 PBT (Post Extra-ord Items)		3,155	4,658	1503	48
41 Tax		982	1,176	194	20
42 Reported Net Profit		2,173	3,482	1309	60
43					

So, overall this was the position and this is what is horizontal analysis, where in we are trying to calculate comparative balance sheet. Now, let us go down we also have profit and loss account data, though we do not have the whole of P and L account. So, if we try to compare you will realize that sales have been increased by about 35 percent. So, increase in the dates and inventory of same order is more or less, fine.

And it shows a very healthy growth for the company, because in the 1 year the sales have increased by a good amount. Reported net profit has increased by 60 percent which is really good. So, company's profitability position is increasing, there PBDIT has also increased by good portion 49 percent. Operating profit the rise is not that much it is 28 percent, still it is a good increase.

So, over all we have seen, what we have done now is known as horizontal analysis. Now, let us try to repeat it, but now let us do vertical analysis. So, do you remember now what is done in vertical analysis?

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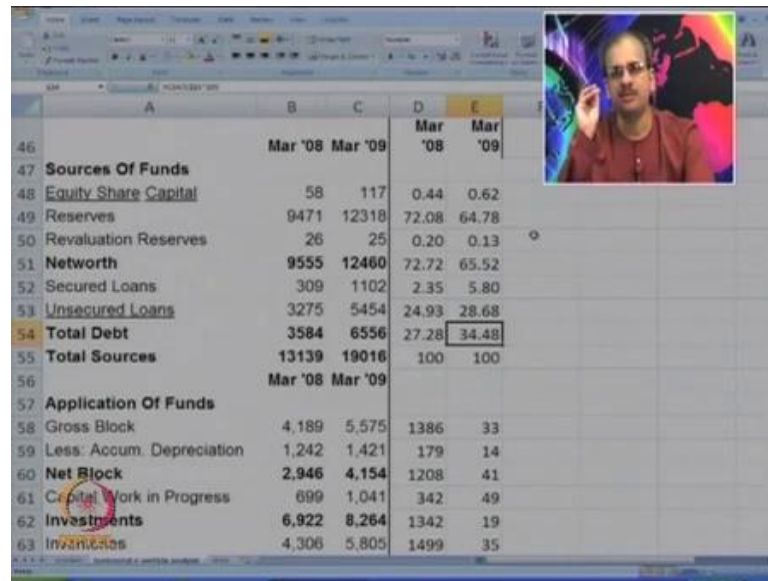


Vertical Analysis		Common-size Balance Sheet		Absolute % Change	
	Mar '08	Mar '09			
Sources Of Funds					
Equity Share Capital	58	117	59	102	
Reserves	9471	12318	2847	30	
Revaluation Reserves	26	25	-1	-4	
Networth	9555	12460	2905	30	
Secured Loans	309	1102	793	257	
Unsecured Loans	3275	5454	2179	67	
Total Debt	3584	6556	2972	83	
Total Sources	13139	19016	5877	45	
Application Of Funds					
Grass Book	4,189	5,575	1386	33	
Less Accum Depreciation	1,242	1,421	179	14	
Net Block	2,946	4,154	1208	41	

So, which statement is prepared in vertical analysis? Just try to remember, we have discussed it in our earlier sessions. So, we have made comparative statement, now will try to make a statement, which I know as common size statement. So, what is prepared in common size statement? In common size statement, we essentially try to take each item and relate it to the total.

So, in horizontal we had compared the 2 years in vertical instead of comparing the 2 years for the same year, we take the total and compare. So, here we have a figure of total sources, each item on the sources side will be compared with the total of sources.

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	Mar '08	Mar '09	Mar '08	Mar '09
Sources Of Funds				
Equity Share Capital	58	117	0.44	0.62
Reserves	9471	12318	72.08	64.78
Revaluation Reserves	26	25	0.20	0.13
Networth	9555	12460	72.72	65.52
Secured Loans	309	1102	2.35	5.80
Unsecured Loans	3275	5454	24.93	28.68
Total Debt	3584	6556	27.28	34.48
Total Sources	13139	19016	100	100
	Mar '08	Mar '09		
Application Of Funds				
Gross Block	4,189	5,575	1386	33
Less: Accum. Depreciation	1,242	1,421	179	14
Net Block	2,946	4,154	1208	41
Capital Work in Progress	699	1,041	342	49
Investments	6,922	8,264	1342	19
Inventories	4,306	5,805	1499	35

So, this 58 divided by the total sources and usually we multiply by 100, so that we get a percentage figure. So, there is nothing like absolute and percentage change now. Instead of that, we will simply have percentage, figures for both the years. So now, the data for the particular year continues, but we try to relate it in terms of percentages. So, if I drag it down, you can get the information more systematically within this some problem with the formula.

So, it is B 48 that is this cell divided by 355 and I should have added the dollar 55. So, that there is no confusion. So now, it has come right. So, I hope you are getting so for each of the cell we are comparing the respective item upon the total sources. That is why the final figure is going to be 100 percent and overall you do see that very small portion is contributed by equity capital it is just 0.44 percent though it has now increased to 0.62 percent.

Major contribution towards sources is coming from reserves, which is about 72 percent. The loans were contributing only 24 percent especially, unsecured loan, now it has increased to 28 percent. If you look at the total debt it was 27 percent, now it has increased relatively by a higher amount it has become 34 percent. So, when you look at the vertical analysis you realize that on the whole what is the contribution of each of these items will also try to relate calculate it for various assets.

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	B	C	D	E
52 Secured Loans	309	1102	2.35	5.80
53 Unsecured Loans	3275	5454	24.93	28.68
54 Total Debt	3584	6556	27.28	34.48
55 Total Sources	13139	19016	100	100
56	Mar '08	Mar '09		
57 Application Of Funds				
58 Gross Block	4,189	5,575	31.88	29.32
59 Less: Accum. Depreciation	1,242	1,421	9.45	7.47
60 Net Block	2,946	4,154	22.42	21.84
61 Capital Work in Progress	699	1,041	5.32	5.47
62 Investments	6,922	8,264	52.68	43.46
63 Inventories	4,306	5,805	32.77	30.53
64 Sundry Debtors	7,365	10,056	56.05	52.88
65 Fixed Deposits	185	82	1.41	0.43
66 Cash and Bank Balance	780	693	5.94	3.64
67 Loans and Advances	3,861	7,199	29.39	37.86
68 Advances	16,496	23,835	125.55	125.34
69 Current Liabilities	11,893	15,211	90.52	79.99
70 Provisions	2,035	3,067	15.49	16.13

So, now you can see, I hope you are able to get what has been done, each of the item we are dividing by the total, so 4189 upon 13319 which is the total of sources and also total of applications. So, we see that, out of the total money applied 31 percent is for gross block or the fix assets at the original costs. If you look at the net position it is 22 percent, the total investments are 52 percent now it has slightly gone down to 43 percent. Because, the company is on expansion mode and lot of new assets are added you can see that portion of inventory has gone down, but portion of sundry debtors remains quite huge.

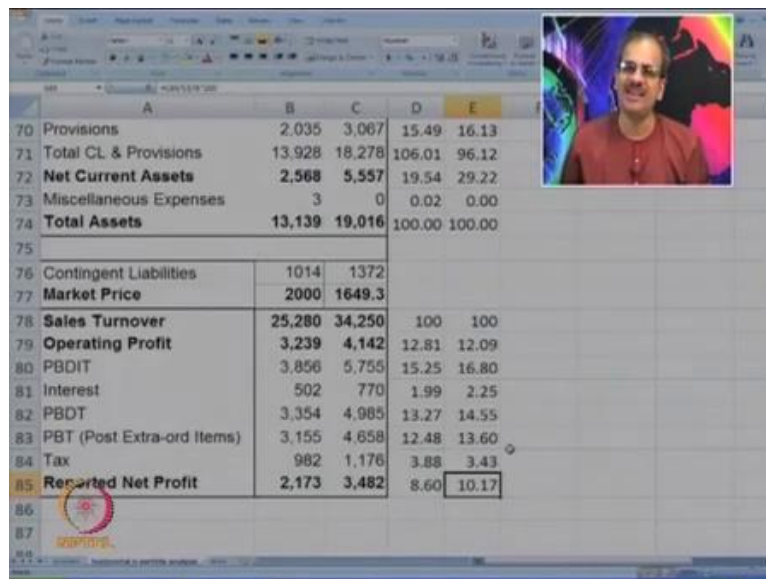
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	B	C	D	E
58 Gross Block	4,189	5,575	31.88	29.32
59 Less: Accum. Depreciation	1,242	1,421	9.45	7.47
60 Net Block	2,946	4,154	22.42	21.84
61 Capital Work in Progress	699	1,041	5.32	5.47
62 Investments	6,922	8,264	52.68	43.46
63 Inventories	4,306	5,805	32.77	30.53
64 Sundry Debtors	7,365	10,056	56.05	52.88
65 Fixed Deposits	185	82	1.41	0.43
66 Cash and Bank Balance	780	693	5.94	3.64
67 Loans and Advances	3,861	7,199	29.39	37.86
68 Advances	16,496	23,835	125.55	125.34
69 Current Liabilities	11,893	15,211	90.52	79.99
70 Provisions	2,035	3,067	15.49	16.13
71 Total CL & Provisions	13,928	18,278	106.01	96.12
72 Net Current Assets	2,568	5,557	19.54	29.22
73 Miscellaneous Expenses	3	0	0.02	0.00
74 Total Assets	13,139	19,016	100.00	100.00
75				
76 Contingent Liabilities	1014	1372	7.68	7.22

So, out of the total money 56 percent is blocked in the form of sundry debtors, which is really a high portion. But, in the current year company has been able to control it somewhat it has come down to 52 percent. Another very big item you can see is advances, which was 125 percent and which is more or less remain the same, which could be a matter of concern to them.

So, over all you can see the net current assets are about 19 percent, but they have increased now 29 percent, which is not such a good thing. And the increase is mainly, because the current liability has gone down from 90 percent to 80 percent, so this is the overall position. So, by looking at the vertical statement or a common size statement, you can know the proportion contributed by each item, there is further advantage of these percentages. We can compare it not only for the 2 years for the same company we can also compare this percentages with some other company. That is why vertical analysis proves to be very useful for inter firm comparisons, on also for comparing this company with the industry.

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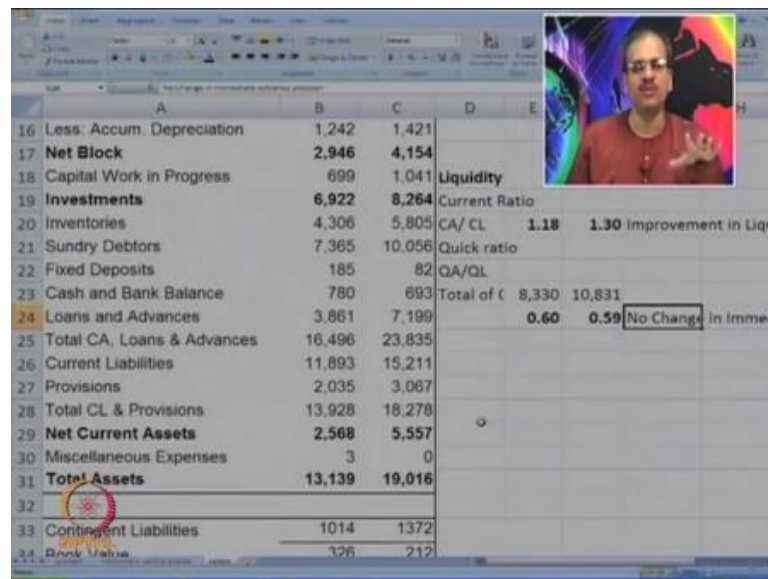


70	Provisions	2,035	3,067	15.49	16.13
71	Total CL & Provisions	13,928	18,278	106.01	96.12
72	Net Current Assets	2,568	5,557	19.54	29.22
73	Miscellaneous Expenses	3	0	0.02	0.00
74	Total Assets	13,139	19,016	100.00	100.00
75					
76	Contingent Liabilities	1014	1372		
77	Market Price	2000	1649.3		
78	Sales Turnover	25,280	34,250	100	100
79	Operating Profit	3,239	4,142	12.81	12.09
80	PBDIT	3,856	5,755	15.25	16.80
81	Interest	502	770	1.99	2.25
82	PBDT	3,354	4,985	13.27	14.55
83	PBT (Post Extra-ord Items)	3,155	4,658	12.48	13.60
84	Tax	982	1,176	3.88	3.43
85	Reported Net Profit	2,173	3,482	8.60	10.17
86					
87					

Let us go to P and L account data. And try to find the percentage in case of P and L account we try to relate to the total of sale turn over. So, each item will be divided by the sale turn over and multiplied by 100, because we are trying to get the percentage hope. So, it is clear. So, total sale is 100 percent operating profit becomes 12 percent, it has slightly gone down from 12.81 to 12.09.

PBDIT around 15 percent, PBDT that is Profit Before Deprecation Tax, which is also known as cash profit, as slightly increased from 13.27 to 14.55 final net profit or reported net profit as is known as profit after tax it is also that is also used for it has increased from 8.6 to 10.17, which is a good arise. So, I hope once again now there is clarity on horizontal and vertical analysis. Now let us go ahead and try to calculate the ratios.

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	A	B	C	D	E
16 Less: Accum. Depreciation		1,242	1,421		
17 Net Block		2,946	4,154		
18 Capital Work in Progress		699	1,041		
19 Investments		6,922	8,264		
20 Inventories		4,306	5,805		
21 Sundry Debtors		7,365	10,056		
22 Fixed Deposits		185	82		
23 Cash and Bank Balance		780	693		
24 Loans and Advances		3,861	7,199		
25 Total CA, Loans & Advances		16,496	23,835		
26 Current Liabilities		11,893	15,211		
27 Provisions		2,035	3,067		
28 Total CL & Provisions		13,928	18,278		
29 Net Current Assets		2,568	5,557		
30 Miscellaneous Expenses		3	0		
31 Total Assets		13,139	19,016		
32					
33 Contingent Liabilities		1014	1372		
34 Bank Value		326	212		

Liquidity			
Current Ratio			
CA/ CL	1.18	1.30	Improvement in Liquidity
Quick ratio			
QA/QL			
Total of ₹	8,330	10,831	
	0.60	0.59	No Change in Immediate Liquidity

So, what are the important ratios, we have seen the ratios under 3, 4 categories. First we had seen liquidity ratios, which I have tried to put here because they have some linkages the current as with the current assets and liability. We had also seen ratios, which focus on profitability returns stability and so on. Let us, try to calculate each of these ratios. The first ratio as you can see is will go in the sequence in which we had gone earlier. For liquidity one of the important ratios is current ratio.

So, for calculation of current ratio the formula used is CA upon CL. That is current assets added by current liabilities. So, what are the current assets? Just have a look at the balance sheet carefully. So, which items will you include in current assets, will include inventories, debtors, fix assets, cash loans and advances. In fact, total is already given. So, we can directly take 16419 and current liability also the total is given current liability and provisions. Do not just take this 11,000.

Actually, you should take 13918, which is the total current liabilities plus provisions. So, we are dividing this 16496 upon 13928. So, I hope there is a clarity, so what do you see? You can see that the ratio which was 1.18 has slightly increased to 1.30 which is a good sign I have already written, it is there is an increase what does it show? Increase shows some improvement in the liquidity position of the company.

Are you getting me? We will just try to see the remark, which I have written there is a improvement in the liquidity position of the company. I will just change the font to make it more clear. Now, a what is the next ratio in the same category that is a liquidity category. The next popular ratio is quick ratio, what is the formula of quick ratio? It is QA upon QL that is quick assets divided by quick liabilities. So now, tell me what are the quick assets?

The ratio is also known as assets and we can say it is liquid assets upon liquid liabilities one under same thing. So, look at the current assets, which of them are liquid in nature we will include them. So, shall we include inventory, we should not it is not a liquid assets debtors, yes it is a quick assets, fix assets is a quick assets, cash is a quick assets. Loans and advances we should not include it is non quick. And in case of liabilities will include both current liabilities as well as provisions.

So, we need to include debtors plus fix deposits plus cash and bank divided by the total current liabilities is no need to multiply by 100 you exactly get ratio as equal 1. So, we have included the B 21 that is sundry debtors then fix deposits and bank. This total is divided by B 28. If you want, you can also do it in some other fashion were in will try to take some of more clarity I am showing you. We are going to take a some of these three items this is the total of quick assets.

We divide this by quick liabilities, so ratio will be this upon this is the correct ratio. I hope it is more clear now. So, I will just cancel the earlier things. In the subsequent year also do it, I will just re do it. So, I think now it is more clear, now are you getting me? This was the calculation of total quick assets and the ratio you get is 0.58 and 0.59. So, what do you get from the ratio?

You will realize that there is almost same type of liquidity position as in the earlier year. If you look from the overall standard, this liquidity position is not that good. Because, the standard ratio of quick current ratio is 2 is to 1. And standard quick ratio is 1 is to 1.

However, these standards cannot be applied all the time they can change from company to company.

So, on the whole we see that there is not much of change as far as immediate solvency is concern. Quick ratio calculates immediate solvency position, so I can say there is no change in immediate solvency position. Just see that remark which I have written. No change in the immediate solvency position. So, we have calculated two ratios from the liquidity category.

(Refer Slide Time: 27:39)

Balance Sheet		Mar '08	Mar '09	
		12 mths	12 mths	
Sources Of Funds				
Equity Share Capital		58	117	Leverage
Reserves		9471	12318	debt-equity ratio
Revaluation Reserves		26	25	debt/equity
Networth		9555	12460	BF/OF 0.375 0.5262 INCREASE
Secured Loans		309	1102	
Unsecured Loans		3275	5454	Interest Coverage Ratio
Total Debt		3584	6556	PBIT/INT <input type="text" value="0"/>
Total Liabilities		13139	19016	
Application Of Funds				
Gross Block		4,189	5,575	
Less Accum. Depreciation		1,242	1,421	
Net Block		2,946	4,154	
Capital Work in Progress		699	1,041	Liquidity
Investments		6,922	8,264	Current Ratio

Next will go long term solvency or they are also known as leverage ratios. The first important ratio in that category is do you remember? One important ratio in that category is debt equity ratio the formula is debt upon equity or borrowed funds upon owner's funds. Interest coverage also will try to calculate but later. So, how do you calculate now, how much are the borrowed funds?

So, you can see the total of net worth is nothing but, the borrowed funds divided by the debt I am sorry, I am doing other way round borrowed fund is 3584 divided by the net worth. So, earlier 0.37 was the contribution of borrowed fund verses owner fund. Now, it has slightly increased it has somewhat increased to 0.52. So, it shows that now the company reliance on the borrowed fund has increased, which is not that healthy sign from long term solvency view point.

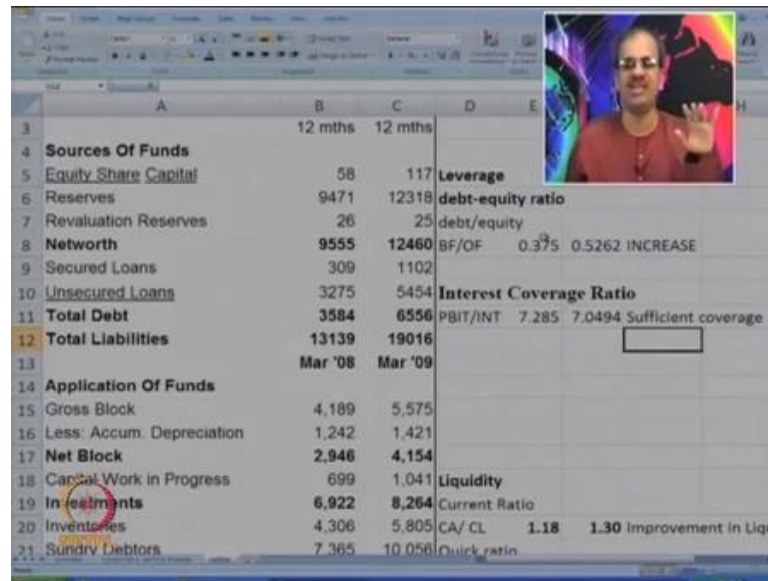
But still substantial chunk being contributed by equity, there is no risk to the health of the company. So, long term solvency continues to be good. So, we will just calculate one ratio on that and let us go to coverage ratios. So, we have a interest coverage ratio in that category. So, you know the formula it is PBIT upon interest.

(Refer Slide Time: 29:25)

	A	B	C	D	E
34 Book Value		326	212		
35 Market Price		2000	1649.3		
36 Sales Turnover		25,280	34,250	PROFITABILITY	
37 Operating Profit		3,239	4,142	EBIDTA	INCREASE
38 PBDIT		3,856	5,755	EBIDTA/SALES	
39 Interest		502	770		
40 PBDT		3,354	4,985	NPM	
41 PBT (Post Extra-ord Items)		3,155	4,658	NPAT/SALES	
42 Tax		982	1,176		
43 Reported Net Profit		2,173	3,482	ROCE or ROI	
44 WN				PBIT/Cap Empl	
45 PBIT		3,657	5,428		
46 PBT		3,155	4,658	RONW or ROE	
47 INTEREST		502	770	PAT/NW	
48					
49				EPS	
50				PAT/No of equity shares	
51					
52				P/E RATIO	

We have to go down look at the P and L data we know the profit before interest and tax. So, it has not been straight way given, but we have been given PBT and interest. So, using this two we can calculate PBIT, are you getting me? So, PBT is 3511 interest is 502 to total is 3657 this is the profit, which is available for paying interest if you divide it by interest you get, the interest coverage ratio. This shows how many times the interest is covered by the available profits. So, let us, try to calculate it is PBIT divided by interest.

(Refer Slide Time: 30:20)



The screenshot displays a financial spreadsheet with columns for '12 mths' and 'Mar '09'. The data is organized into sections: Sources of Funds, Application of Funds, and various financial ratios. A video inset in the top right corner shows a presenter with their hand raised.

	12 mths	12 mths			
Sources Of Funds					
Equity Share Capital	58	117	Leverage		
Reserves	9471	12318	debt-equity ratio		
Revaluation Reserves	26	25	debt/equity		
Networth	9555	12460	BF/OF	0.375	0.5262 INCREASE
Secured Loans	309	1102			
Unsecured Loans	3275	5454	Interest Coverage Ratio		
Total Debt	3584	6556	PBIT/INT	7.285	7.0494 Sufficient coverage
Total Liabilities	13139	19016			
	Mar '08	Mar '09			
Application Of Funds					
Gross Block	4,189	5,575			
Less: Accum. Depreciation	1,242	1,421			
Net Block	2,946	4,154			
Capital Work in Progress	699	1,041	Liquidity		
Investments	6,922	8,264	Current Ratio		
Inventories	4,306	5,805	CA/ CL	1.18	1.30 Improvement in Liqui
Sundry Debtors	7,365	10,056	Quick ratio		

So, 7.28 which is very, very healthy figure that means, company has 7 times more earnings in terms of PBIT which can be used to pay the interest. In the current year it has slightly gone down, but still it is a very healthy sign. So, I can say there is sufficient coverage particularly, bankers and lender's will be very much interested in knowing the liquidity ((Refer Time: 30:51)) the interest coverage ratio of the company.

Before sanctioning any loan, any bank or institution will look at the interest coverage ratio of the company and also of the project. So, we have seen liquidity ratios, now we have also seen leverage ratios and the interest coverage ratio.

ratio that is known has NPM or Net Profit Margin. So, what does it calculate? The net profit divided by sales I have already return the formula NPAT upon sales, copy it.

So, NPAT is this reported net profit, so B 43 upon B 36, so it is 9 percent and in the current year it has increased to 10 percent. If you look at the all the three ratios you will see that there is a increase in EBITA margin, good increase from 15 to 17 net profit is more or less maintained. So, in absolute terms you feel that there is a increase in net profit substantially, from 2173 to 3482. But, if you look at ratios, you will realize that more or less the margin is maintained.

So, increase in the profitability is largely, because company could increase it is turn over. As such the profitability has remained almost constant. This inside you can get if you look at the ratios carefully. Operating profit margin has slightly gone down though in total totality the profits have substantially increased again due to increases in the turn over.

So now, let us go to return ratios. In return ratios the first important ratio are ROCE or ROI, the formula is PBIT upon capital employed. This is the total money, which is earned on the capital employed. So, you have PBIT which is 3657 divided by capital employed we have to go up, go to the balance sheet you can see, there is a total of sources given that becomes capital employed.

(Refer Slide Time: 36:55)

	Mar '08	Mar '09	
Sources Of Funds			
Equity Share Capital	58	117	Leverage
Reserves	9471	12318	debt-equity ratio
Revaluation Reserves	26	25	debt/equity
Networth	9555	12460	BF/OF 0.375 0.5262 INCREASE
Secured Loans	309	1102	
Unsecured Loans	3275	5454	Interest Coverage Ratio
Total Debt	3584	6556	PBIT/INT 7.285 7.0494 Sufficient coverage
Total Sources	13139	19016	
Application Of Funds			
Gross Block	4,189	5,575	
Less: Accum. Depreciation	1,242	1,421	
Net Block	2,946	4,154	
Capital Work in Progress	699	1,041	Liquidity
Investments	6,922	8,264	Current Ratio
Interiors	4,306	5,805	CA/ CL 1.18 1.30 Improvement in Liqui
Sundry Debtors	7,365	10,056	Quick ratio
Fixed Deposits	185	82	OA/CI

Instead of total liability let us, call it total sources. Because, we are not including current liabilities, in total sources we are only including net worth and total debt. Are you getting me?

(Refer Slide Time: 37:19)

	A	B	C	D	E
44	WN				ROCE or ROI
45	PBIT	3,657	5,428	PBIT/Cap Empl	
46	PBT	3,155	4,658		28
47	INTEREST	502	770	RONW or ROE	
48				PAT/NW	23% 28%
49				EPS	
50				PAT/No of equity shares	
51					37.47 29.76
52				P/E RATIO	
53				Price/EPS	
54					53.38 55.419
55				TURNOVER RATIOS	
56				FA Turnover ratios	
57				sales/FA	8.58 8.25
58					
59				Inventory Turnover ratios	
60				sales/inventory	
61					
62				days of inventory	

So, total sources were 13139 now they are 19016 look at the return which as generated, it has more or less remain constant 28 to 29. So, again we were assuming that they is a substantial increase in profit, but if you look at from a return view point. Since, the companies investment or the capital employed has also increased the return remains more or less same. Next is RONW or Return on Net Worth or Return on Equity or is called formula is PAT upon net worth.

Here, we are trying to look from the view point of the owners. So, profit after tax is the profit is which the owners earn divided by the net worth of the owners. So, I am just copying and then let us go and try to calculate the correct formula. So, PAT you have this reported net profit divided by net worth or the owner's fund. So, 23 percent and in the current year there is a significant increase it has become 28 percent.

So, you can see that though the profit at ROCE level is more or less constant, the reported net profit or the profit after taxes increased substantially. So, there is increase in ROE. Now, the last ratio in this category that is written is EPS earning per share. Formula also given you can see here it is PAT divided by number of equity number of shares. So, how will you calculate equity number of shares?

Actually, it is not given anywhere, but since you know the equity share capital, if you assume that each share worth 1 rupee. We can take the same amount as the number of equity shares. So, PAT divided by number of equity shares, keep in mind this not a percentage this tells you that per share what is the earning? So, per share earning has gone down from 37 to 29, why has it gone down?

Actually, going down of EPS is not a good sign, but you can see ((Refer Time: 39:51)) that equity share capital has more than double. So, 58 to 117 that is the reason why, EPS as somewhat gone down, but still it is a healthy sign if company has given the bonus share. Now, let us go to PE ratio Price Earning ratio, which is a very important ratio for stock market investor. So, in this ratio the relationship is calculated between the price and the earnings.

So, how many times the investors are willing to pay for the profits earned or the earnings of this company. So, market price is given here, divided by the EPS which we have just calculated. So, it is 53 it has more or less may see slightly it has increased. We have done three types of ratios. Initially we started liquidity then we looked at long term solvency that is debt equity or leverage. Then, we look at profitability verses turn over like EBITA or net profit margin.

Next we have seen return ratios, which calculates profitability verses capital employed. Now, we are looking at activity or turn over ratios, which show how efficiently the assets are being managed. So, the first ratio in this category is fix assets turnover ratio, the formula is sales upon fix assets. So, you have a sales figure divided by the net block. Sometimes you can also divide by gross block. Again this is not a percentage it is in terms of number of times. So, it has increased, it has slightly gone down from 8.58 and now it has become 8.25. Hope you are getting me.

(Refer Slide Time: 42:05)

	A	B	C	D	E
54					53.1
55					TURNOVER RATIO
56					FA Turnover ratio
57				sales/FA	8.58 8.25
58					
59					Inventory Turnover ratios
60				sales/inventory	
61					5.87 5.90
62					days of inventory
63				inventory/(sales/365)	
64					62.17 61.864
65					
66					Debtors Turnover ratios
67				sales/Debtors	
68					3.43 3.41
69					days of inventory
70				inventory/(sales/365)	
71					106.3 107.17
72					

Same way you got inventory turnover ratio, in inventory turnover ratio we try to relate sales upon inventory. Sometimes we calculate cost of sales upon inventory. In this case the cost of sales is not available, so will try to calculate the sales upon inventory. So, I can use the same formula more or less. Only difference is instead of sales upon fix assets, now it has divided by inventory. So, you can see inventory is B 20. So, we will divide it by B 20. So, ratio is 5.87 there is some increase.

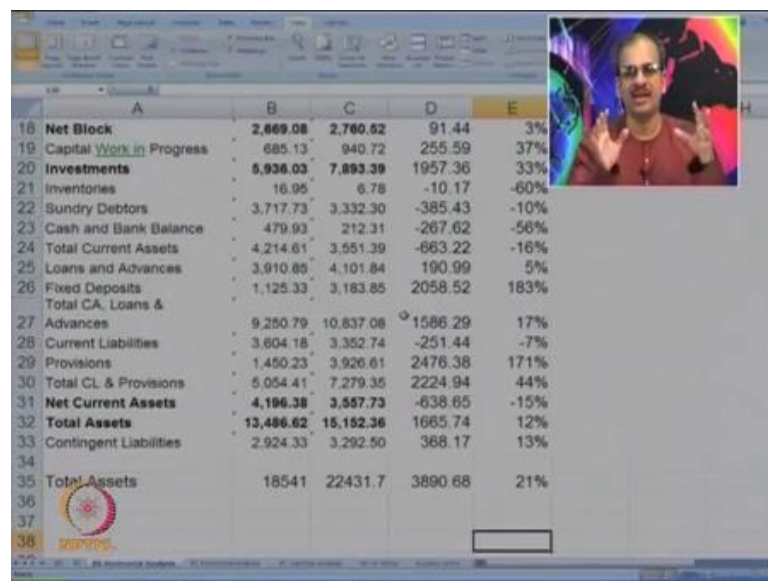
So now, it has become 5.90 it is a small increase it is shows a good sign. It is shows that there is a improvement in utilization of inventories. This can be better understood if we convert it in terms of number of days for which, we divide inventory by daily sales or sales upon 365. We can also simply divide our inventory turnover ratio and multiplied by 365. So, in terms of number of days earlier you had 62 days of stock now it has gone down. And it has become 61 days of stock or the inventory.

You can go to inventory figures and check out. You will find that the increase has happened, but not in that much of proportion. So, in terms of number of days there is 1 day reduction in the stock not very significant. But, at least the inventory values are gone down. Same ratio we will also try to calculate for debtors. So, similar to inventory turnover ratio, you also have debtor's turnover ratio, this is also known as receivable turnover ratio. So, the formula is sales upon debtors.

So, you can see, the debtors is this 21, so 3.43 the ratio is really very low. It has further gone down to 3.41. In terms of number of days there are 106 days of receivables which have further increase to 107. Does not show very good collection record of course, it changes from industry to industry. So, here we were trying to calculate various turnover ratios. So, I hope now you have understood various types of ratios. So, we will stop here and we will go for the next case now, please have a look at all the ratios once again.

Could you guess, what is the company or could you at least guess is it a manufacturing company or a service company? I think you can guess that it is a manufacturing company, because it holds a good amount of inventory and it also has a large amount of fix assets, which may not be this case for IT Company. So, this was the these are the figures of Larsen and turbo, which has been somewhat adopted to make it easy.

(Refer Slide Time: 46:01)



	B	C	D	E
18 Net Block	2,869.08	2,790.52	91.44	3%
19 Capital Work in Progress	685.13	940.72	255.59	37%
20 Investments	5,936.03	7,893.39	1957.36	33%
21 Inventories	16.95	6.78	-10.17	-60%
22 Sundry Debtors	3,717.73	3,332.30	-385.43	-10%
23 Cash and Bank Balance	479.93	212.31	-267.62	-56%
24 Total Current Assets	4,214.61	3,551.39	-663.22	-16%
25 Loans and Advances	3,910.85	4,101.84	190.99	5%
26 Fixed Deposits	1,125.33	3,183.85	2058.52	183%
Total CA, Loans & Advances	9,250.79	10,837.08	1586.29	17%
28 Current Liabilities	3,604.18	3,352.74	-251.44	-7%
29 Provisions	1,450.23	3,926.61	2476.38	171%
30 Total CL & Provisions	5,054.41	7,279.35	2224.94	44%
31 Net Current Assets	4,196.38	3,567.73	-638.65	-15%
32 Total Assets	13,486.62	15,152.36	1665.74	12%
33 Contingent Liabilities	2,924.33	3,292.50	368.17	13%
34				
35 Total Assets	18541	22431.7	3890.68	21%
36				
37				
38				

Now, this is the balance sheet of some other company try to have a look at it. And this is a profit and loss account. We will try to do the similar type of analysis. First let us, look at horizontal analysis, look at the balance sheet once again, will go for horizontal analysis. I have already made it to save time, but have a look at it carefully. So, there are two figures absolute difference and percentage difference. In a absolute difference we were trying to calculate the change between the 2 years.

So, 295 minus 197 you get 97 point 86 and it has been converted into percentage terms at 49 percent, I hope everyone is clear. What is this statement is known as? This is known

as a comparative statement or a comparative balance sheet I will try to give the name to it. Now, look at each of this figure carefully. If you just look at the balance sheet, you may not understand exactly, what are the items which are changing?

This gives a better picture, because now you understand, which items have changed and how much change contributes to. So, what do you see? Have a look at each of these items, equity shares capital have increased by 100 percent, so it has doubled. There is no change in preference capital. So, total share capital nearly 50 percent increase. There was in absolute terms substantial increase in the results 15712 cores, but in percentage terms it is only 12 percent there are almost no secured and unsecured loans, so changes are negligible.

Go to the application of funds in the applications the first item is gross block. So, you will realize that again there is a 12 percent increase in the gross block. The depreciation provision has increased much more. So, net block has increased only by 3 percent, capital work in progress has increased by 255, it is a significant increase in percentage terms. You can also see, investments have gone up by 1957 which is 33 percent. So, company has lot of surplus funds, which is has invested go down.

So, you will observe that there is a major decrease in the sundry debtors. So, 10 percent decrease in the sundry debtors, which is a good sign. If company is able to recover it is earlier money. Same thing cash balances slightly increased, if you look at provisions, provisions have increased hefty increase 2476 cores or 171 percent increase in provision. So, this is the overall position of the company. I hope there is a clarity. So, in the next session we will try to go in for, I will just finish it.

So, totally the company has increased by 21 percent. So, same some we will continue in the next session. So, we are looking at a case we have started with the horizontal analysis, we will look at vertical analysis and also go for the ratios of the same. So, I request you to a somewhat brush up you are ratios, because that is a very important tool. And if you try to look at various ratios and various relationships will get really lot of insides into the raw data in the form of P and L and balance sheet.

Thank you so much. We will meet in the next session.