

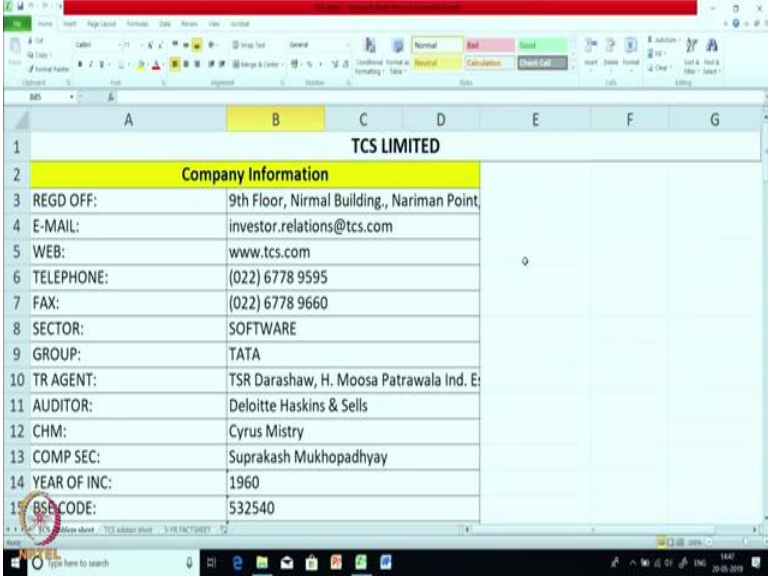
Financial Accounting
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School of Management
Indian Institute of Technology, Bombay

Lecture – 36
Financial Statement Analysis: TCS Case 1

Namaste. In last few sessions, we have been discussing about Analysis of Financial Statements. We have seen horizontal and vertical analysis and we have also discussed variety of ratios. If you remember, we had discussed that one can have any number of ratios linking any particular data to some other data and those relationships are much more valuable to the users of financial statements. So, variety of stakeholders according to their requirement calculate variety of ratios. There can be also slight variations in the formulas they use although most of the ratios to have a standard formula.

So, we have discussed cases of a few companies. Today we will discuss a very important company known as TCS Limited. This is one of the largest companies in India in terms of employment. Perhaps the largest private sector employer and has a very high market capitalization and it is one good example of a service sector company. So, let us look at their financials and try to calculate different ratios and then comment on the financial statements going for the interpretation of those ratios. We have also taken here apart from financial some other type of data because ratios do use or can be used can use variety of data apart from financial statements.

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The screenshot shows an Excel spreadsheet with the following data:

TCS LIMITED	
Company Information	
REGD OFF:	9th Floor, Nirmal Building, Nariman Point,
E-MAIL:	investor.relations@tcs.com
WEB:	www.tcs.com
TELEPHONE:	(022) 6778 9595
FAX:	(022) 6778 9660
SECTOR:	SOFTWARE
GROUP:	TATA
TR AGENT:	TSR Darashaw, H. Moosa Patrawala Ind. E
AUDITOR:	Deloitte Haskins & Sells
CHM:	Cyrus Mistry
COMP SEC:	Suprakash Mukhopadhyay
YEAR OF INC:	1960
BSE CODE:	532540

Now, let us look at the TCS. This is their basic information the registered office, their address, name of the directors, name of the auditors and so on. I hope you have done it for your company as a part of the assignment.

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16	FV (Rs):	1				
17	DIV YIELD (%):	0.7				
18	Price and shareholding data					
19	Price	Rs	2,090.2	% ch	%	-0.2
20	Mkt Cap	Rs m	8,002,487	No. of shares	m	3,828.58
21	Vol	'000	122.7	% ch week	%	-2.8
22	P/E	X	25.4	% ch 1-mth	%	-0.9
23				% ch 12-mth	%	21.6
24	EPS (TTM)	Rs	82.4	52 week H/L	Rs	273.0/1,712.9
25	Share Holding					
26	Indian Promoters:	%	72.1%			
27	Foreign collaborators:	%	0.0%			
28	Indian inst/Mut Fund:	%	2.2%			
29	FII:	%	16.1%			
30	AD/GDR:	%	0.0%			

Now, this is a price and share holding data for the company; so, calculated up to May, 2019. Now, this is the latest price, the percentage change in price; the number of shares number of shares are calculated in millions then the market cap. Do you know what is market cap?

Student: No.

We have not seen this ratio, but this differs to number of shares into market price. Full form is market capitalization; popularly known as m cap or market cap. This is a very good proxy for the size of the company or you can say the value of the company valued at stock market prices because here we are taking stock market price into number of shares. Then the volume, do you know what is volume referring to? Here the volume is referring to the number of shares traded.

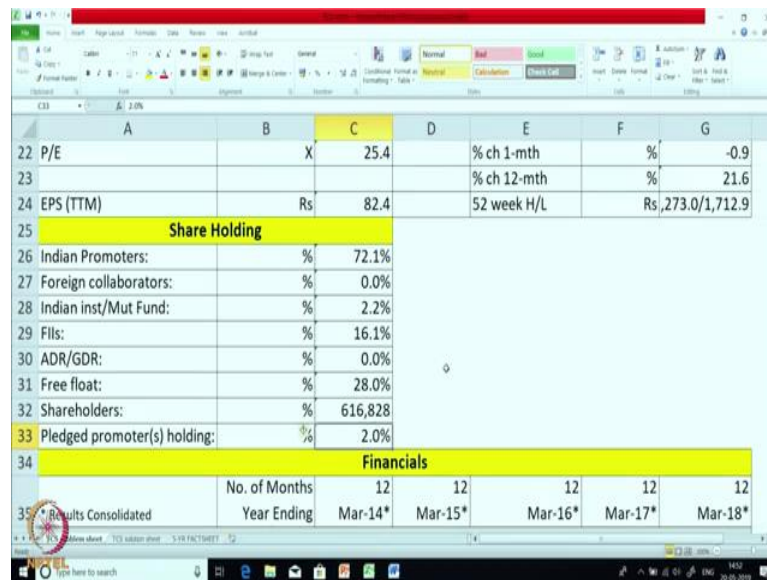
So, when you look it from a stock market angle, high volume indicates more liquidity for the company stocks and normally shareholders or prospective investors prefer to invest in a company which has more volumes. So, some basic data which is given we are just looking at. Then PE; we have discussed PE. Do you remember what is it? Price earning ratio according to market prices it will keep on changing. Denominator which is EPS which will change on a quarterly basis, but the numerator which is market price keeps on changing every now and then. This is the current PE for the company.

Then earning per share, percentage change for 1 month, 12 months etcetera are the changes of the market price and 52 week high or low is the low and high market price for the company. So, 273 is a high price 2730 and I think it is only showing part of it. So, I will click here and that will be visible; you can see here 2273 (Refer Time: 05:09) 3273 is the highest price and 17, 2273 is the highest price and 1712 is the lowest price.

So, this is generally known as price and share holding data. It is already given, but I am just those who are more interested in stock markets, you can easily download this data and study more about the company from stock market angle. Now, the share holding data this is a Indian company this belonging to Tata group. So, Indian promoters have 72 percentage holding. Foreign collaborators, there is no collaboration so, 0 percent.

Indian Institutions and mutual fund have just 2 percent holding FIIs or Foreign Institutional Investors have 16 percent holding there is no ADR or GDR. Are you aware what is ADR or GDR? This is American Depository Receipt or Global Depository Receipt. So, company can issue it shares in foreign market using these instruments, but since TCS has not done. This is 0 percent free float that is the stock which is freely available in the market, it is 28 percent.

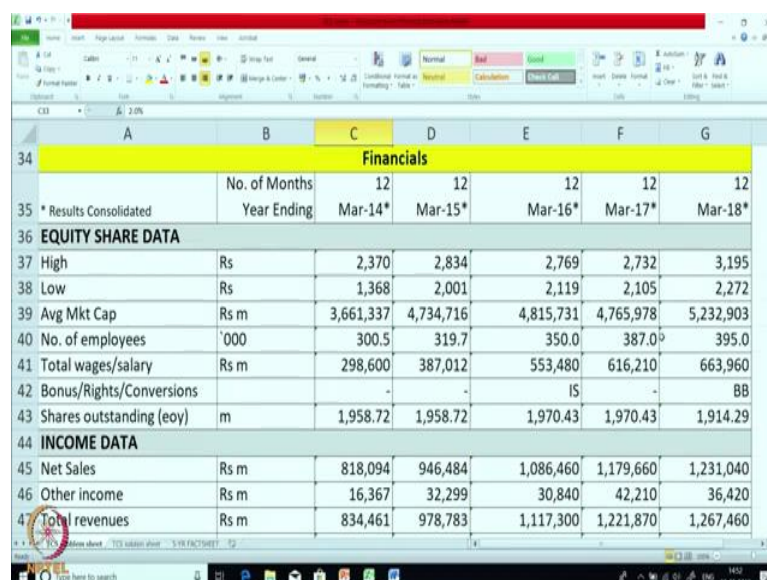
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	A	B	C	D	E	F	G
22	P/E	X	25.4		% ch 1-mth	%	-0.9
23					% ch 12-mth	%	21.6
24	EPS (TTM)	Rs	82.4		52 week H/L		Rs,273.0/1,712.9
25	Share Holding						
26	Indian Promoters:	%	72.1%				
27	Foreign collaborators:	%	0.0%				
28	Indian inst/Mut Fund:	%	2.2%				
29	Fils:	%	16.1%				
30	ADR/GDR:	%	0.0%				
31	Free float:	%	28.0%				
32	Shareholders:	%	616,828				
33	Pledged promoter(s) holding:	%	2.0%				
34	Financials						
	No. of Months	12	12	12	12	12	
35	* Results Consolidated	Year Ending	Mar-14*	Mar-15*	Mar-16*	Mar-17*	Mar-18*

Shareholders percentage is 616. This is the number of shareholders and pledged promoters holding. So, whether promoters have pledged their holding and taken loan that is just 2 percent which shows more stability for the company. If it is higher it means that promoters have taken lot of loans using their stake ok. So, this is some share holding data.

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	A	B	C	D	E	F	G
34	Financials						
	No. of Months	12	12	12	12	12	
35	* Results Consolidated	Year Ending	Mar-14*	Mar-15*	Mar-16*	Mar-17*	Mar-18*
36	EQUITY SHARE DATA						
37	High	Rs	2,370	2,834	2,769	2,732	3,195
38	Low	Rs	1,368	2,001	2,119	2,105	2,272
39	Avg Mkt Cap	Rs m	3,661,337	4,734,716	4,815,731	4,765,978	5,232,903
40	No. of employees	'000	300.5	319.7	350.0	387.0	395.0
41	Total wages/salary	Rs m	298,600	387,012	553,480	616,210	663,960
42	Bonus/Rights/Conversions		-	-	IS	-	BB
43	Shares outstanding (eoy)	m	1,958.72	1,958.72	1,970.43	1,970.43	1,914.29
44	INCOME DATA						
45	Net Sales	Rs m	818,094	946,484	1,086,460	1,179,660	1,231,040
46	Other income	Rs m	16,367	32,299	30,840	42,210	36,420
47	Total revenues	Rs m	834,461	978,783	1,117,300	1,221,870	1,267,460

Now, let us go to financials. So, we have got financial data for last 5 years. Again in that there is a equity share data. So, first of all you have got price data. You can see over last

5 years, the market prices have been this. This is the higher market prices and this is the low market price ok. Now, the average market cap this is one of the high M cap company. So, current average market cap is 5232.

Number of employees I have told you, it is one of the largest employers in India in thousands is 300 that is 3 lakhs; this 300,000 is the and the current is 395,000. So, around 4 lakh is a number of employees. Total wages or salary which is also given in rupees millions it is. So, it is 663960 millions. This is the total salary. Then bonus rights or conversions some code is given for the same. Then shares outstanding, this is the number of shares which are outstanding it is 1914.

So, those shares which are issued and have not yet been cancelled these are shares outstanding. Above also we had been given number of shares data.

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	A	B	C	D	E	F	G
43 Shares outstanding (eoy)	m		1,958.72	1,958.72	1,970.43	1,970.43	1,914.29
44 INCOME DATA							
45 Net Sales	Rs m		818,094	946,484	1,086,460	1,179,600	1,231,040
46 Other income	Rs m		16,367	32,299	30,840	42,210	36,420
47 Total revenues	Rs m		834,461	978,783	1,117,300	1,221,870	1,267,460
48 Gross profit	Rs m		251,528	244,817	306,770	323,110	325,160
49 Depreciation	Rs m		13,492	17,987	18,880	19,870	20,140
50 Interest	Rs m		385	1,042	330	320	520
51 Profit before tax	Rs m		254,019	258,087	318,400	345,130	340,920
52 Minority Interest	Rs m		-1,680	-2,075	0	0	0
53 Prior Period Items	Rs m		0	0	0	0	0
54 Extraordinary Inc (Exp)	Rs m		0	4,898	0	0	0
55 Tax	Rs m		60,700	62,388	75,020	81,560	82,120
56 Profit after tax	Rs m		191,639	198,522	243,380	263,570	258,800
57 Gross profit margin							

Now, let us go to income data which is mainly extracted from their profit and loss account. So, this is the sales for last 5 years; current sales is 1231. You can do a trend analysis because the information is made available for last 5 years. Then, other income which is not much so, you get total revenue which is currently 1267 then, gross profit which is 325. The balance is of course, their cost of providing services because it is mainly a service company. Depreciation which is not much of amount which is 20000 millions since this is a manufacturing company their depreciation is relatively low.

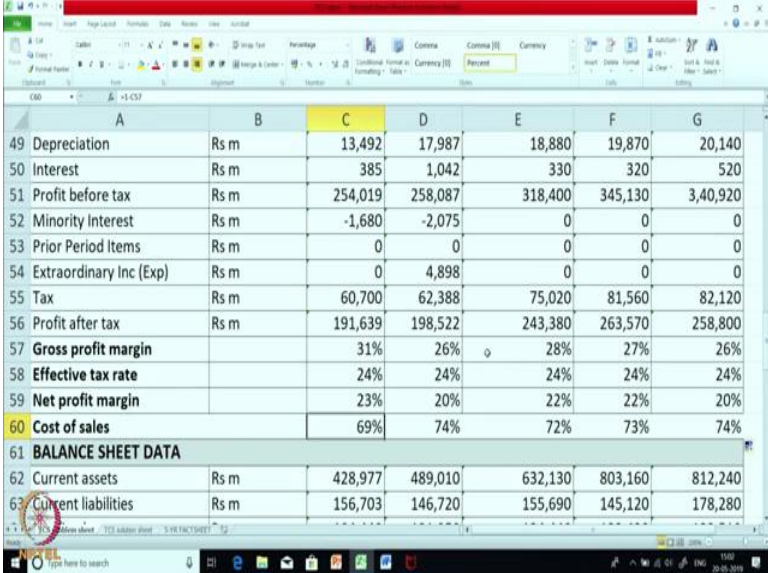
Interest cost you can see is very low. Why it is low? Because the debt must have been very low. We will go to balance sheet now.

Then profit before tax, you can see reasonably consistent increase in profit although in the current year the profit has stagnated. Minority interest is given in last 2 years; right now there is no minority interest. Now, what is meant by minority interest? This is the data for the whole group. So, group will have various subsidiaries and there might be some shareholders who have shares in the subsidiary. Although our company that is TCS has majority holding there might be some small shareholders in those subsidiary companies. Their holding or their share in the owners fund is called as minority interest which will come whenever any consolidated balance sheet is given.

Now, currently there is no minority interest those companies might have been merged with TCS. Then prior period items, what is a prior period item? These items are last years mistakes or errors; if they are rectified in a particular year they are required to be separately shown as a prior period item which is not the case, so, it is 0.

Extraordinary items into bracket expense. So, in most of the years it is 0 except in 1 year where it is 4898. Then tax and the last figure over here is profit after tax.

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	A	B	C	D	E	F	G
49 Depreciation		Rs m	13,492	17,987	18,880	19,870	20,140
50 Interest		Rs m	385	1,042	330	320	520
51 Profit before tax		Rs m	254,019	258,087	318,400	345,130	3,40,920
52 Minority Interest		Rs m	-1,680	-2,075	0	0	0
53 Prior Period Items		Rs m	0	0	0	0	0
54 Extraordinary Inc (Exp)		Rs m	0	4,898	0	0	0
55 Tax		Rs m	60,700	62,388	75,020	81,560	82,120
56 Profit after tax		Rs m	191,639	198,522	243,380	263,570	258,800
57 Gross profit margin			31%	26%	28%	27%	26%
58 Effective tax rate			24%	24%	24%	24%	24%
59 Net profit margin			23%	20%	22%	22%	20%
60 Cost of sales			69%	74%	72%	73%	74%
61 BALANCE SHEET DATA							
62 Current assets		Rs m	428,977	489,010	632,130	803,160	812,240
63 Current liabilities		Rs m	156,703	146,720	155,690	145,120	178,280

So, the whole P and L will would have been very long. So, a kind of summary of P and L is given and we have been asked to calculate certain ratios.

So, one is a gross margin ratio, then effective tax rate and net margin ratio. Now, how will you calculate gross margin? What is a formula? Do you remember the formula? Very simple, we are trying to link gross profit to sales. So, compute the gross margin ratio. So, this is equal to gross profit divided by net sales. So, you get 0.30 you can convert it into percentage for better understanding. So, 31 percent is a gross margin or gross profit percent.

So, if you compare 5 years, what do you get? It is 31, 26, 28, 27 and 26 which shows that margins are in pressure. In 2014, their margins were pretty high 31 percent; now it is only 26 percent. Gradual fall in the margin is seen. Getting it?

Next is effective tax rate. Please calculate with me. So, we have got tax amount. Now, this is what percentage if you want to know it as a percentage. So, what is a formula? This tax is to be divided by what? It is charge on which amount? Actually it is charge on profit before tax. So, this shows 23 percent. In terms of percentages, it has come to 24. So, you can see in all the years it has remained stagnant; it is 24 percent.

Now, what is the actual rate of tax for the companies? The maximum marginal rate is 30 percent or 33 percent including surcharge. Most of the companies do some investment and their effective rate of tax is low and they might also get some benefits because of export or because of some investment at certain places. That is why we need to calculate effective tax rate which you can see here is 24 percent, Getting it?

Next is net profit margin. Net profit margin is nothing, but net profit ratio. So, we will calculate the net profit after tax as a percentage of which figure, you will get?

Student: Net sales.

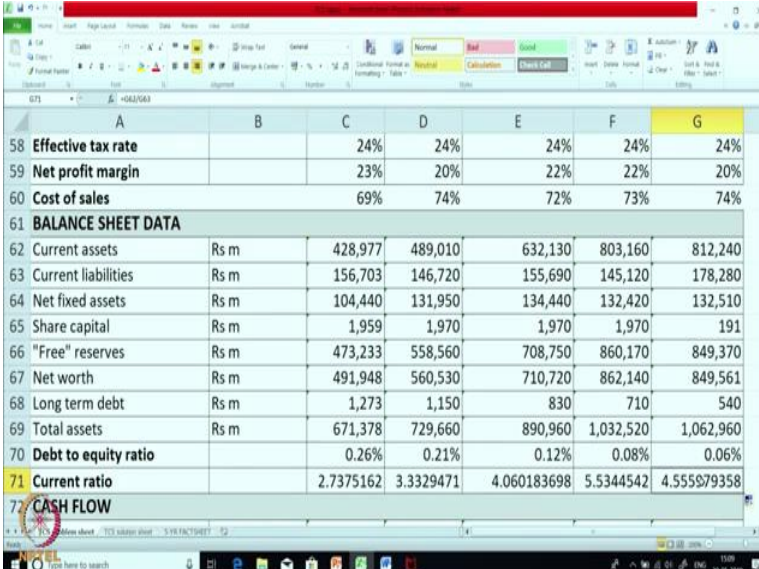
Net sales or other income or total revenue. Normally here total revenue is more relevant. See, in case of gross profit we had taken it as a percentage of net sales, but for net profit we are normally going for total revenue because net profit includes all profits including other income, but yes if you want to calculate it as a percentage of net sales then that can also be done. So, it comes to 23 percent. Over the period it has also fallen from 23, it has slowly gone down and it is now 20 percent.

Why there is a fall in net profit? Mainly because of fall in the gross profit. In fact, other income has increased especially from 2015 and that would have help to slightly take up net profit ratio, otherwise all other calculations are more or less same. Are you getting me? So, we have calculates calculated some of the important profit related ratios.

Now, we can also go for balance sheet and try to calculate sum of the balance sheet related ratios. Before that if you want to have some idea about the cost, you can be asked about calculating how much their how much is their cost of sales as a percentage of profits. So, can you calculate it? You can calculate you can take the gross margin and 100 minus gross margin, you will get the percentage of their cost of sales ok.

So, let us also try to calculate that ratio. You can also call it cost of providing service because it is mainly a service company. One easy way of doing, it is just finding it from the gross margin; otherwise we can calculate the cost of sales here and then divided by net sales; cost of sales upon net sales or one minus the gross margin either way you can get it. You can see here the cost of sales is slowly going up and that increase has put pressure on the gross margin which in turn has also brought down the net margin. Are you getting it?.

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The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G
58 Effective tax rate			24%	24%	24%	24%	24%
59 Net profit margin			23%	20%	22%	22%	20%
60 Cost of sales			69%	74%	72%	73%	74%
61 BALANCE SHEET DATA							
62 Current assets	Rs m		428,977	489,010	632,130	803,160	812,240
63 Current liabilities	Rs m		156,703	146,720	155,690	145,120	178,280
64 Net fixed assets	Rs m		104,440	131,950	134,440	132,420	132,510
65 Share capital	Rs m		1,959	1,970	1,970	1,970	191
66 "Free" reserves	Rs m		473,233	558,560	708,750	860,170	849,370
67 Net worth	Rs m		491,948	560,530	710,720	862,140	849,561
68 Long term debt	Rs m		1,273	1,150	830	710	540
69 Total assets	Rs m		671,378	729,660	890,960	1,032,520	1,062,960
70 Debt to equity ratio			0.26%	0.21%	0.12%	0.08%	0.06%
71 Current ratio			2.7375162	3.3329471	4.060183698	5.5344542	4.555879358
72 CASH FLOW							

Let us go to now the balance sheet data. Have a look at the balance sheet first. The current assets are slowly going up same way their current liabilities are also going up, but at a slower rate. You can see their current liabilities are much lesser than current

asset. Then net fix assets also show slow raise although the major raise was in 2015 after that it is more or less stagnant. Then free reserves sorry share capital. Share capital is more or less same although it has been reduced now in terms of rupees millions.

Then the free reserves- free reserves are steadily going up net worth also is steadily going up the company has been in profit for a very long time that is why they are able to build up their free reserves. What is a net worth? Net worth is nothing, but the owners fund. The net worth also has been slowly increasing and as you know share capital plus free reserves give us the net worth. Then you get long term although net worth may not be exactly that amount because there could be some other reserves also in some cases. See this is not the full balance sheet we have just been given some extracted and important figures.

Now, long term debt it is very low it is just 1273 and now it is 540. So, company is mainly relying on the owner's fund. They hardly have any debt and whatever little debt they have that also they are slowly repaying. Total assets, this is the figure of their total assets which has been steadily rising especially if you see last year March this is I think March 17. There was a major increase in the total assets ok.

Now, let us try to calculate these two ratios; debt to equity ratio and current ratio. Now, what is the formula of debt to equity? Normally we take long term debt as a percentage or of or divided by net worth or we can also say borrowed fund upon owners' fund. If you go for a percentage it will be 0 percent I will just increase the decimal it becomes 0.26 percent which is very low. Sometimes it is calculated as number of times, but since this amount is so small that number of times will be just 0.2.

Now, is it good to have such a low debt equity ratio if you remember we had discussed about debt equity ratio of 1, 2, 3, 4 also sometimes; that means, debt was much more than the debt by than the equity maybe 2 times or 3 times. Now, is it good to have low debt equity? Answer is yes. We have discussed that higher debt equity leads to un stability whereas, a lower debt equity is a stable position; that means, from risk perspective lower debt equity is always good, but it may impact profitability adversely.

But, what happens is in case of companies like IT companies, they do not require very high quantity of capital. For a manufacturing or for an infrastructure company there is a need of a huge capital. So, they can justify more debt equity ratio their income streams

are also more stable. But, for a IT company or for a service sector company their main capital is human capital or their main capital is their brain. It is not in the tangible form so, does not need too much of fixed asset, so, does not need too much of capital.

So, they do not have normally have high level of debt equity ratio. So, it is good that they have low debt equity ratio. In fact, they have further brought it down. There are companies like Infosys which most of zero debt company because they are completely financed by equity. Now, this was about their long term stability. Now, let us look at their liquidity for which we will calculate current ratio.

Now, what is the formula of current ratio? Do you remember? It is current assets divided by current liabilities. So, please calculate along with me CA divided by CL. So, you get 2.73. Normally, it is not calculated as a percentage. So, we will drag it over a period of time it has consistently increased. So, from 2.73 now it is 4.55. Of course, in the last year it had come down a bit. So, is it a good sign? Normally yes because we have discuss that debt equity ratio of 2 is to 1 is considered as standard although that standard can change from company to company.

So, here we see that company has much higher debt equity ratio than the minimum required which is a positive sign from liquidity angle. Although one can raise a question as to why current assets are though that high compared to current liability? For further analysis we may require more data like their aging schedule or like their debt like their debtors collection period, to see whether their collection period is too high. But, as of now based on available data this is a good sign as for as liquidity is concerned.

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	A	B	C	D	E	F	G
67 Net worth	Rs m	491,948	560,530	710,720	862,140	849,561	
68 Long term debt	Rs m	1,273	1,150	830	710	540	
69 Total assets	Rs m	671,378	729,660	890,960	1,032,520	1,062,960	
70 Debt to equity ratio		0.26%	0.21%	0.12%	0.08%	0.06%	
71 Current ratio		2.7375162	3.3329471	4.060183698	5.5344542	4.555979358	
72 CASH FLOW							
73 From Operations	Rs m	147,514	193,688	191,090	252,230	250,670	
74 From Investments	Rs m	-96,671	-17,013	-51,500	-167,320	28,860	
75 From Financial Activity	Rs m	-56,732	-171,676	-96,660	-110,260	-268,850	
76 Net Cashflow	Rs m	-3,735	3,940	44,330	-26,980	12,860	
77							
78 Exports (fob)	Rs m	2,612	4,696	0	0	0	
79							
80 Combined Ratios							
81 Exports to sales							

Now, next are cash flow related information. So, all the three types of cash flows are given; cash from operations, investments and financial activity. So, you can see here cash from operations is consistently rising, although in the last year it has become somewhat stagnant. Cash from investments was negative; high quantum negative. Last year also it was negative in the current year it is positive.

Now, it is a good sign that it is a good sign that it is positive now? Not necessarily, although normally we feel positive is good, but if investment side cash flow is positive it means that there is no much of fresh investment. So, having a negative cash flow from investment is in fact, good. Of course, just by one year we cannot conclude because over 4 year period they have got a negative cash flow there. Cash from financing activity has been most years negative because they have been paying good amount as a dividend and do not have a to really raise a much of the funds since they are getting good amount of cash flows from operations.

So, overall you can see that net cash flow was has been maintained well. In fact, it was much higher positive figure in 2016, then negative figure one year and again it has become positive. So, overall their cash flow position looks fine. So, we have just have a look at all the three statements.

Now, in the coming session we are going to continue with calculation of various ratios. So, I will request you all to sit with that sheet and try to calculate the ratios along with me. Till that time let us break. Namaste.