

Business Data Management
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Analysis of Firm Performance – Key Ratios

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Analyzing Firm Performance



Professor M Suresh Babu: So, from an industry's perspective, we know that an industry is a combination of so many firms. But we also see that some firms are doing extremely well in an industry. Some firms might not be able to do well in an industry. So, from an industry's perspective, how will you analyze a firm's performance?

Professor G. Venkatesh: So, I mean, usually the measures are financial. So, though, of course, inside the firm, there are operating parameters, and sometimes people external to the firm may have access to these operating parameters because the firm discloses them. You need statements, financial statements.

But many times, they do not disclose it. So, all you have access to is their overall financial numbers. So, what revenue they have, how is the revenue changing, how is it growing, and for that revenue, what are the cost items, some heads they will give you. And then therefore, profits. Different levels of profit are there. Profit at the gross margin level.

We have to explain what it is, then what is the profit at the EBITDA, that is, earnings before interest, depreciation, tax and amortization. Then, what is the net profit margin, which is after all

these financial things, what is the net profit margin they are making? And how is this profit itself changing over a period of time? And how much of the assets, what kind of assets they have put to use to produce these revenues.

So, how much capital did they raise? Are they getting a return for that? Because I am an investor, I invested in a company. I need to know whether or not my investment, I could have put in some other company maybe I would have got better returns. So, I need to know the investment, what returns it is giving. So, I need to know that.

And so, you have to explain. For example, so, how did you raise money? So, you could have raised it using capital through equity, giving shares basically in your company. So, you could have raised money like that. Or you could have borrowed money from a bank. So, if you have borrowed money, then have you borrowed too much money because when you borrow too much money, you have to repay it. So, do you have the capacity to repay this money?

Professor M Suresh Babu: Interest payments become very expensive, become very high.

Professor G. Venkatesh: Interest payments become very high. So, that affects your profitability. No, more than that also the company might become bankrupt. You may not be able to repay the money to the bank. Then it becomes delinquent. So, does it have the capacity to repay? Because revenues can go up and down, profit also can go up and down.

Then there is this business of how well it is managing its cash. So, is it keeping enough cash to do, take care of its operations, running operations. And how, how is it generating cash? It can generate, so for example, a company may be doing a lot of revenues, it may be producing, but when it builds its customers, it may not be able to collect the money. So, for example, in government contracts, the government does not pay on time.

Professor M Suresh Babu: There will be a delay in getting that.

Professor G. Venkatesh: A lot of delays. So, in that period of time when the work is done but they are not able to collect the money, there is cash locked up with the customer.

Professor M Suresh Babu: So, you will have a liquidity crunch.

Professor G. Venkatesh: You have a liquidity crunch. So, you will have a shortage of cash. So, how well are they managing cash? So, that is another question. So, these are all many different

things. So, but by and large many of these mandatory companies are asked to disclose it in their financials.

Professor M Suresh Babu: Because investors should know.

Professor G. Venkatesh: Investors should know. If it is a listed company of course they have to disclose but even non-listed companies are forced to disclose a fair amount of their financial performance. And so, by looking at the filings of a company in the stock exchange or in the Ministry of Corporate Affairs of India, you can find out basically a fair amount about what is going on inside the company from their financial statements.

Professor M Suresh Babu: I think it is very interesting because if we get this information and if we can have very simple measures. Basically, certain growth rates and certain ratios and plotting these ratios over time, perhaps we can track a company's performance then. So, let us look at some of these ratios and let us see.

Professor G. Venkatesh: Ratios which people track.

Professor M Suresh Babu: How we can actually track the performance of a firm.

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Financial Analysis



- Assessment of the firm's past, present and future financial conditions
- Done to find firm's financial strengths and weaknesses
- Primary Tools:
 - Financial Statements
 - Comparison of financial ratios to past, industry, sector and all firms



So, this is called financial analysis. Financial analysis is basically trying to unlock a company's financial performance. All that you just listed out in terms of liquidity, in terms of certain efficiency parameters, everything becomes a part of this financial analysis then.

Now, in financial analysis what we are interested in is to assess the firm's past, present and future financial conditions. Past, we have data, present also we have data, using the past and present data we might be able to project in future, given the market conditions, the firm is likely to perform like this.

So, we can actually look at the financial strengths and weaknesses of a firm. And very importantly you can actually look at certain benchmarks of the industry, certain other firms and compare. Compared to firm X, firm Y is doing better or firm Y is doing bad and things of that sort. And we have a lot of data for this. As you just mentioned there are a lot of financial statements data available as well as there are ratios and a lot of industry reports in the public domain which can be used for looking at the financial analysis.

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Financial Statements

- Balance Sheet
- Income Statement
- Cashflow Statement
- Statement of Retained Earnings



Professor M Suresh Babu: So, four important categories of data are available. One is the balance sheet. From there, we can look at the authentic balance sheet analysis.

Professor G. Venkatesh: The balance sheet, some of our students may not know. So, the balance sheet is?

Professor M Suresh Babu: The balance sheet is the annual financial performance of a company, put in different heads. And a broad category is in terms of assets or liabilities. I have to get this much, and I owe this much.

Professor G. Venkatesh: Assets are basically things that I own. Like factory equipment would be an asset.

Professor M Suresh Babu: And then liabilities. And then you classify this, what are your liabilities.

Professor G. Venkatesh: Liability is, loan. I have taken out a loan, so I have to repay. That is a liability.

Professor M Suresh Babu: Yes. And then you put it in a very specific format, and that is not an easy job because you have to classify this, which is a liability and which is an asset to keep in.

Professor G. Venkatesh: What is an asset?

Professor M Suresh Babu: But then I think that is an accountant's job, which is accomplished quite well. So, balance sheet information provides one source of data. There are a lot of income

statements from this company. Income can come from various sources for a company. From sales, from non-sales kind of incomes, because, for example, a company might have made a profit in t^{th} period and in $(t+1)^{\text{th}}$, it would have parked this profit in some other investments.

Professor G. Venkatesh: You would have put it in a bank.

Professor M Suresh Babu: Bank or a bond or.

Professor G. Venkatesh: Something else.

Professor M Suresh Babu: Something else.

Professor G. Venkatesh: Invest it.

Professor M Suresh Babu: That can also give you income.

Professor G. Venkatesh: Interest, it could give you.

Professor M Suresh Babu: Interest income.

Professor G. Venkatesh: You would earn interest.

Professor M Suresh Babu: Earn interest. So, income analysis, income statements are very important because they also give us.

Professor G. Venkatesh: Where all you are getting.

Professor M Suresh Babu: Where all, your sources of income. Then as we just discussed, a cash flow statement is very important. From where this money is coming, from where it is going, and what is the delay. Very important in terms of understanding the liquidity position.

And then, a lot of companies actually retain their earnings. Retained earning means, at the end of the financial year, you have so much with you, that is, after paying your tax, after paying your dividends, after paying your depreciation, after all that, you have so much with you. What are you going to do with that? One possibility is that you can give more dividends to people.

Professor G. Venkatesh: Buyback your shares. That is what they do, some of them.

Professor M Suresh Babu: Some of them do. The other possibility is that you can actually invest in some other expansion of the firm.

Professor G. Venkatesh: You can build more plants.

Professor M Suresh Babu: Or you can buy out another firm.

Professor G. Venkatesh: Or just keep it.

Professor M Suresh Babu: Yeah, or just keep it. And that.

Professor G. Venkatesh: You may need it some time. So, you do not know.

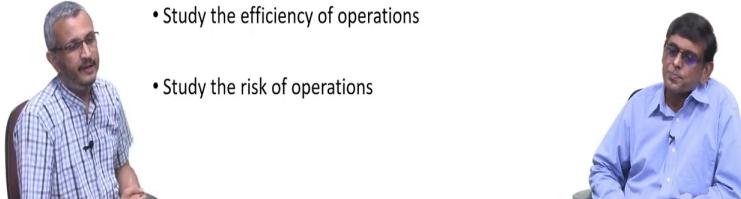
Professor M Suresh Babu: When you keep, you might keep some in liquid and some in some kind of assets kind of a thing. So, all these financial statements analysis then give us an idea of the financial health and performance of a firm.

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Objectives of Ratio Analysis



- Standardize financial information for comparisons
- Evaluate current operations
- Compare performance with past performance
- Compare performance against other firms or industry standards
- Study the efficiency of operations
- Study the risk of operations



Professor M Suresh Babu: Now, the simplest analysis is using some ratios. And this is very interesting because these ratios give us a lot of insights in terms of how the firm is performing, and we will show some of these ratios. That is the whole idea. Why are we using ratios? We are using ratios because firms should be of different sizes, so you need to have a standardized form because sales of one firm will be very high and sales of another firm will be very small. So, if you standardize everything according to the firm's sales, then you have a ratio which is comparable then.

So, for comparability purposes, we use ratio analysis. Otherwise it becomes very difficult because actual numbers could be very miscellaneous in terms of comparisons. So, that is one important thing which we do in terms of ratio analysis, and also it gives us an idea in terms of benchmarking against industry standards. There are certain industry standards and where are we, or as a firm.

Professor G. Venkatesh: So, by industry standard, you mean that for some industries the profitability level, so for example, manufacturing we said, is cost plus. So, their profit margin of, say 5 to 10 % will be acceptable.

Professor M Suresh Babu: And within manufacturing.

Professor G. Venkatesh: But IT, it will not be acceptable.

Professor M Suresh Babu: It will not be acceptable.

Professor G. Venkatesh: 10 % is considered to be a very bad margin, in IT. That is what you mean by.

Professor M Suresh Babu: Yes. And within manufacturing, a cement industry's margins might be entirely different from textiles or FMCG. So, we can actually use these statements to have a kind of a benchmark in firms and industries. So, the ratio analysis then is very important in terms of assessing the efficiency of operations of firms then.

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Ratio Analysis



1. **Liquidity** – the ability of the firm to pay its way
2. **Investment/shareholders** – information to enable decisions to be made on the extent of the risk and the earning potential of a business investment
3. **Gearing** – information on the relationship between the exposure of the business to loans as opposed to share capital
4. **Profitability** – how effective the firm is at generating profits given sales and or its capital assets
5. **Financial** – the rate at which the company sells its stock and the efficiency with which it uses its assets



Professor M Suresh Babu: So, there are five major ratios that we use. One is the liquidity ratio. Second is the investment, that is, from the shareholder's point of view. The third is what is known as gearing ratio, that is, it gives us information on the relationship between exposure of business to loans as opposed to share capital. Then of course profitability, that is, everyone would like to see what is the profitability.

And then a set of financial ratios, that is, the rate at which the company sells its stocks and efficiency with which it uses its assets. Very important, because if you pile up a lot of inventories, so if you have certain ratios where you use inventories also, then we know that perhaps the demand for what the firm produces in the market is not very high.

If the demand is not very high then the cash inflow will be less. If the cash inflow is very less, it might affect your hearing as well as your other ratios. So, on the whole we use these five sets of ratios, that is, liquidity, investment ratio, gearing ratio, profitability ratio, and financial ratio.

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Acid Test

- Also referred to as the 'Quick ratio'
- **(Current assets – stock) : liabilities**
- 1:1 seen as ideal
- The omission of stock gives an indication of the cash the firm has in relation to its liabilities (what it owes)
- A ratio of 3:1 therefore would suggest the firm has 3 times as much cash as it owes – very healthy!
- A ratio of 0.5:1 would suggest the firm has twice as many liabilities as it has cash to pay for those liabilities. This *might* put the firm under pressure.



Professor M Suresh Babu: Now, we will not go to an exhaustive list of all these ratios but we will quickly look at some of the important ratios. One is what is known as the Acid test, that is, the Quick ratio. That is, what is the ratio of your current assets to your current liabilities? We talked about the balance sheet where you have assets and liabilities.

Professor G. Venkatesh: Out of them some are called current.

Professor M Suresh Babu: Or current. At this particular point in time, what is your asset position, and what is your liability position. Now, in these current assets, we can actually, current assets minus stock because stock is something that you have accumulated in the past. That is why we use the word current. Now, if you have a 1:1 ratio, your current asset to current liability is 1:1, then you are fine. But if it is not, then there is a problem. For example, a ratio of 3:1 suggests that a firm has three times as much as cash it owes. So, it is a very healthy firm.

Professor G. Venkatesh: So, there are a lot of assets, I mean current assets compared to liabilities.

Professor M Suresh Babu: But a ratio of something like 0.5:1 means the firm has twice as many liabilities as it has assets.

Professor G. Venkatesh: Which means that it has to double its assets to even pay back the amount of money.

Professor M Suresh Babu: So, there is something wrong.

Professor G. Venkatesh: Something wrong.

Professor M Suresh Babu: Something is wrong. There is some pressure.

Professor G. Venkatesh: In Fact, typically liabilities, I mean loans would be, the bank would basically hypothecate it. It will basically ensure that the loan is given against some asset only. So, usually it is not so easy to get to that state of 0.5:1 unless you have loans which you have taken without such hypothecations.

Professor M Suresh Babu: There is a problem there in the sense of, banks might have different valuations. So, banks might think that.

Professor G. Venkatesh: That assets are valued.

Professor M Suresh Babu: And this firm might do, do very well.

Professor G. Venkatesh: They may make some estimations.

Professor M Suresh Babu: And then they sometimes lend money. And that is one of the reasons why we accumulate non-performing assets for the banks.

Professor G. Venkatesh: And assets also, value will decline over time. At the time when they took the loan the asset may have valued something, then it may decline. So, it becomes 0.5:1. And now they have a problem, this company.

Professor M Suresh Babu: Yes. So, one thing is the Acid test, which is known as the Quick ratio because you can compute it quickly from the balance sheet.

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Current Ratio



- Looks at the ratio between Current Assets and Current Liabilities
- **Current Ratio = Current Assets : Current Liabilities**
- Ideal level? – 1.5 : 1
- A ratio of 5 : 1 would imply the firm has Rs.5 of assets to cover every Rs.1 in liabilities
- A ratio of 0.75 : 1 would suggest the firm has only 75p in assets available to cover every Rs.1 it owes
- Too high – Might suggest that too much of its assets are tied up in unproductive activities – too much stock, for example?
- Too low - risk of not being able to pay your way



Acid Test



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Professor M Suresh Babu: Second is a Current ratio. The current ratio is nothing but current assets to current liabilities. But there is one difference between the Quick ratio and the Current ratio. In the Quick ratio current assets minus stock is done, but here we are not that stock. So, it is just a kind of a derivative of the earlier kind of a Quick ratio.

And then again, too high or too low. Too high means too much of its assets are tied up, perhaps in unproductive sectors, and too much of assets have been stocked. You can unleash these assets perhaps. And that information we are getting from this stock. The earlier it is deducted. So, too

low means, well, you will not be able to repay your liabilities. So, there is a problem. So, it is a variant of the Acid test.

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Investment/Shareholders



- **Earnings per share** – profit after tax / number of shares
- **Price earnings ratio** – market price / earnings per share – the higher the better generally for company. Comparison with other firms helps to identify value placed on the market of the business.
- **EV / EBITDA Ratio** - Enterprise Value / EBITDA ratio - the higher the better generally for company . It measures the operational performance of the firm.



Professor M Suresh Babu: Third thing is Investment and Shareholders ratios. There are a lot of ratios in this but we will not go into the details of this. This is a very simple computation. But generally, what people look at as an investor. This, from an investor's perspective, what ratio they will have, that is earnings per share.

What is earnings per share? Earnings per share is nothing but Profit After Tax (PAT) divided by the number of shares. So, the company would have raised capital by floating shares, so there is the total number of shares that the company has floated, and you have the profit after tax.

Professor G. Venkatesh: Just divide one by that.

Professor M Suresh Babu: Just divide by that. You will get roughly the earnings per share.

Professor G. Venkatesh: What is the profit per share, in some sense.

Professor M Suresh Babu: Yeah. Now, looking at that I will invest in companies, as an investor. So, as an investor, as a prudent investor, I will invest in a company which gives me more earnings per share. So, that is why this is a kind of a shareholders ratio. Then there is price earnings ratio, then there is enterprise value by EBITDA ratio, and then there is dividend yield ratio. Now, all these ratios, we are not going to the details of each of them, but basically these are to assess how investors would actually look at this firm.

Professor G. Venkatesh: Whether the company is giving enough value to investors or not.

Professor M Suresh Babu: Now, so then, it is from any investors' or a shareholders' perspective.

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Gearing



- **Gearing Ratio = Long term loans / Capital employed x 100**

- The higher the ratio the more the business is exposed to interest rate fluctuations and to having to pay back interest and loans before being able to re-invest earnings



Professor M Suresh Babu: Then there is a very important Gearing ratio. That is, long-term loans divided by the capital employed. What does it give us? It gives us an idea as to how to give your capital, so loans can be short term or long term. Now, given our assets and capital that we have now, will we be able to repay the loans, long-term loans that we have taken. So, higher the ratio, the more the business is exposed to the interest rate fluctuations because long-term interest rates might actually vary, and you have to pay back this interest rate and loans before you are thinking of reinvesting somewhere or expanding somewhere.

Professor G. Venkatesh: So, how much of the capital that you have employed has come from long-term loans. That is what you are checking.

Professor M Suresh Babu: Now, this is very interesting because some of these corporate houses, at particular phases of expansion.

Professor G. Venkatesh: They borrow a lot of money.

Professor M Suresh Babu: They borrow quite a bit of money.

Professor G. Venkatesh: Long, they borrow using bonds, long term bonds.

Professor M Suresh Babu: 15 years old.

Professor G. Venkatesh: 15 year or 20-year bonds. Sometimes issued, these bonds are borrowed, taken, they take money from overseas, the dollar bonds. So, not only is it sensitive to interest rates.

Professor M Suresh Babu: But also.

Professor G. Venkatesh: Sensitive to exchange rate fluctuation also.

Professor M Suresh Babu: Exchange rate fluctuations also. So, looking at this Gearing ratio, then the firm decides, okay, it is time for us to restructure, we should reduce these debt levels. We had a very interesting kind of an example in the Indian context recently, that is, the Reliance Industries thing. Reliance had a restructuring of their capital and then reduction of their debts.

Professor G. Venkatesh: Almost, they said they will become debt free.

Professor M Suresh Babu: That is because at some point they had borrowed.

Professor G. Venkatesh: A huge amount of money. It was to set up the Telecom business.

Professor M Suresh Babu: Yes. So, the gearing ratio then gives us an idea in terms of long term loans.

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Profitability



- Profitability measures look at how much profit the firm generates from sales or from its capital assets
- Different measures of profit – gross and net
 - **Gross profit** – effectively total revenue (turnover) – variable costs (cost of sales)
 - **Net Profit** – effectively total revenue (turnover) – variable costs and fixed costs (overheads)



Professor M Suresh Babu: Then of course Profitability ratios, which every investor as well as the firm is also very keen to know. There you have the gross profit and the net profit. Gross profit is nothing but total revenue or turnover minus the variable cost. Now, our concepts of cost become very important. Variable cost is only used here, that is, cost of sales. And in net profit, well variable and fixed cost, overheads are, are actually utilized, and that will give us an idea in terms of what is the kind of profits that the company is generating using the assets that the company has.

Now, we will see it in a slightly different perspective because there is also the gross profit margin, which can easily be computed because margins also give us an idea as to where the firm stands in the market. A firm which has got a higher market share and command over the market can have higher margins.

Professor G. Venkatesh: Higher gross profit

Professor M Suresh Babu: Higher gross profit margins. So, this gross profit margin is computed by gross profits divided by turnover.

Professor G. Venkatesh: Turnover means revenue of the company.

Professor M Suresh Babu: Yes. So, higher the gross profit margin, better for the company. So, it is a very simple kind of a ratio. So, a gross profit margin of 45 % means that for every rupee or pound or euro sales that I am having, the firm makes 45 % of that as gross profit. That is a very abnormally high figure that we have put but generally that is how we interpret this whole.

Professor G. Venkatesh: It is actually because there are semiconductor industries, all these IT intensive industries make margins, gross margins.

Professor M Suresh Babu: Huge margins.

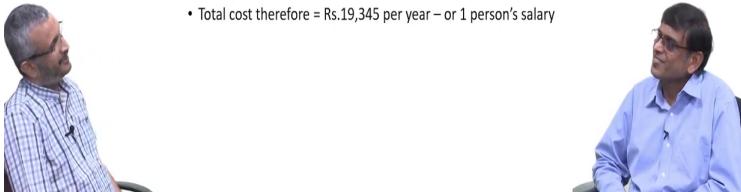
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Profitability



$$\bullet \text{ Net Profit Margin} = \text{Net Profit} / \text{Turnover} \times 100$$

- Net profit takes into account the fixed costs involved in production – the overheads
- Keeping control over fixed costs is important – could be easy to overlook for example the amount of waste - paper, stationery, lighting, heating, water, etc.
 - e.g. – leaving a photocopier on overnight uses enough electricity to make 5,300 A4 copies. (1,934,500 per year)
 - 1 ream = 500 copies. 1 ream = Rs.5.00 (on average)
 - Total cost therefore = Rs.19,345 per year – or 1 person's salary



Professor M Suresh Babu: Then there is.

Professor G. Venkatesh: Semiconductor it is like, 70 and 80 %.

Professor M Suresh Babu: That is a very interesting kind of an industry to examine then. Then there is the net profit margin, which is nothing but the net profit by turnover. Now, here, net profit takes into account the fixed cost involved in the production, that is, the overheads that are involved. And keeping control over this fixed cost is very important because fixed costs also need maintenance. For example, if a photocopier is switched on the whole night, it consumes power.

Professor G. Venkatesh: It consumes electricity, yeah.

Professor M Suresh Babu: So, the electricity bill will go up. That electricity bill, if we had actually utilized that power we could have photocopied so many copies. So, you are actually paying for the electricity without using it. So, we should be very clear in terms of using that overhead. That is why net profit margin gives us more useful insights than gross profit margins.

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Profitability

- Return on Capital Employed (ROCE) = Profit / capital employed x 100

- The higher the better
- Shows how effective the firm is in using its capital to generate profit
- A ROCE of 25% means that it uses every £1 of capital to generate 25p in profit
- Partly a measure of efficiency in organisation and use of capital



Professor G. Venkatesh: Correct.

Professor M Suresh Babu: Now, the other thing is to see these profits in terms of the capital employed. That is, conceptually these ratios are fine, but you need to relate to what %age of capital are we really getting back. So, we use a concept of return on capital employed, ROCE. In ROCE what we are doing is that profit by capital employed. Now, again higher the better. So, we also see that. An ROCE of 25 % means that for every 1 rupee or 1 dollar that is getting invested in it, it generates 25 % of that as profits.

Professor G. Venkatesh: Every year.

Professor M Suresh Babu: Every year.

Professor G. Venkatesh: So, it is a good investment.

Professor M Suresh Babu: It is a good firm to invest in, and it is a growing industry, and the firm is efficient, it is efficiently utilizing its capital, you can interpret it in a different way. So, in a sense, I would use, partially, it as a measure of the efficiency of the organization in the use of capital.

Professor G. Venkatesh: Yeah. How well they are allocating.

Professor M Suresh Babu: And how, how they are able to recoup the investment, invested money that is invested in capital. So, this is a very interesting and a very important kind of measure.

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Asset Turnover

- Asset Turnover = Sales turnover / assets employed

- Using assets to generate profit

- Asset turnover x net profit margin = ROCE



Professor M Suresh Babu: Then there are certain turnover ratios that we use. That is Asset turnover, that is nothing but sales turnover by assets employed.

Professor G. Venkatesh: How much revenue you are producing for every machine that you are putting in use.

Professor M Suresh Babu: Yeah. How you are actually using your assets to generate profits.

Professor G. Venkatesh: Revenues.

Professor M Suresh Babu: Revenues, yes. When you are generating revenues, you are generating profits. So, this is a very important kind of an asset utilization ratio.

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Stock Turnover

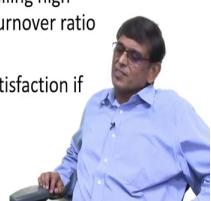
- Stock turnover = Cost of goods sold / stock expressed as times per year

- The rate at which a company's stock is turned over

- A high stock turnover might mean increased efficiency?

- But: dependent on the type of business – supermarkets might have high stock turnover ratios whereas a shop selling high value musical instruments might have low stock turnover ratio

- Low stock turnover could mean poor customer satisfaction if people are not buying the goods



Professor M Suresh Babu: And related to that is the stock turnover ratio. That is, we talked about this, when you have a lot of goods that are getting produced, and then if they are getting piled up then there is a problem.

So, the stock turnover ratio is nothing but the cost of goods sold by the stock expressed as times per year. So, you are stocking 3 times/year or 4 times/year, but your sales are actually less, which means that the market's condition is not good, or you are not able to penetrate the market. So, the rate at which companies have their kind of stocks.

Professor G. Venkatesh: Inventory, how many times the inventories are rotated.

Professor M Suresh Babu: Is rotated, in terms of one.

Professor G. Venkatesh: So, which means that you put something in the warehouse, it got cleared out, you put something else.

Professor M Suresh Babu: Again.

Professor G. Venkatesh: Again, it got cleared out.

Professor M Suresh Babu: Yes.

Professor G. Venkatesh: So, how many times do you do?

Professor M Suresh Babu: So, that, that is, that is another kind of demand.

Professor G. Venkatesh: Correct

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Debtor Days

- Debtor Days = Debtors / sales turnover x 365
- Shorter the better
- Gives a measure of how long it takes the business to recover debts
- Can be skewed by the degree of credit facility a firm offers



Professor M Suresh Babu: Finally, related to that is what is known as Debtor Days. This is very important, and we talked about that in the beginning because that is, debtors by the sales turnover, which means that it gives the measure how long it takes for the business to recover its debts.

Professor G. Venkatesh: Collect your money from the customers.

Professor M Suresh Babu: Yeah and we talked about government contracts and all in the beginning. So, if you are putting too much in certain businesses where there is a delay in terms of recouping the money then definitely there is a kind of a liquidity problem that you might face. So, debtor days are very important.

Professor G. Venkatesh: So, it is represented in terms of days.

Professor M Suresh Babu: Days.

Professor G. Venkatesh: So, you are expected to collect your money in, say, 60 days but you might actually have 90 days, which means you are 30 days old. It might take 120 days to get your money back, which means that the industry norm is 60 days, you are getting your money back in 120 days, which means that you have 60 days worth of sales which you have not collected. So, it affects your cash position like that.

Professor M Suresh Babu: Yes. It is very important because you have to pay your variable costs.

Professor G. Venkatesh: You have to pay your employees, you have to keep paying.

Professor M Suresh Babu: Yeah. So, we see that there will be a working capital

Professor G. Venkatesh: Requirement.

Professor M Suresh Babu: Problem in this kind of a firm.

Professor G. Venkatesh: Situation.

Professor M Suresh Babu: Yeah. So, you will have to borrow to finance your working capital. If you borrow and finance your working capital, you will pay interest on that.

Professor G. Venkatesh: So, your profitability will get affected.

Professor M Suresh Babu: It will get affected. So, that is why this is a very important ratio.

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Summary of Financial Ratios



- Ratios help to:
 - Evaluate performance
 - Structure analysis
 - Show the connection between activities and performance
- Benchmark with
 - Past for the company
 - Industry
- Ratios adjust for size differences



Professor M Suresh Babu: So, this is basically a broad overview of the financial ratios. But then we also need to understand why we are using it, in what context we are using it because it gives us an idea in terms of benchmarking the company with the past performance of the company as well as in terms of the industry.

Professor G. Venkatesh: And it is industry neutral, in the sense that I can see, for example return on capital employed, I do not care what the company is, which industry sector it is, because I am putting 100 rupees of my investment, money as an investment in somebody's company. I could have put it in somebody else's company. So, I can just use ROCE to compare these two companies. One can be a steel company, one can be an IT company, one can be a bank, it does not matter. So, this

way it becomes neutral to the industry. Of course, when you compare profitability or something you will look at companies within one industry.

Professor M Suresh Babu: And also, exactly like what, what you pointed out as an investor we might look at earnings per share.

Professor G. Venkatesh: Earnings per share, yeah. How does it matter, what industry it is?

Professor M Suresh Babu: What industry it is. Whichever.

Professor G. Venkatesh: Whoever gives better earnings per share, I will put it there.

Professor M Suresh Babu: As an investor, I might put my money there. So, that is why it is very, very interesting because it also adjusts for the size differences also.

Professor G. Venkatesh: Size differences also, yeah.

Professor M Suresh Babu: Some of the small firms could actually give you higher earnings per share. So, all that is taken care of with this simple ratio analysis.

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Limitations of Ratio Analysis



- A firm's industry category is often difficult to identify
- Published industry averages are only guidelines
- Accounting practices differ across firms
- Sometimes difficult to interpret deviations in ratios
- Industry ratios may not be desirable targets
- Seasonality affects ratios



Professor M Suresh Babu: But then there are certain limitations. The limitations are in terms of, well, these accounting practices might differ according to firms and industries very, very marginally. But there is now a global standard as well as country-specific standards. But still there could be the classification and the valuation problems that would come there.

But more or less there is a set standard, but the important thing is that, well, there are seasonality effects that we talked about in the beginning, there could be certain times of the year you have. So this is very important because if you are doing quarterly analysis ratios, in one quarter what happened, and compare it with the other quarter, the seasonality has to be, so then you have to look at quarterly along with annual. Annuals over the years will take care of the season. Every year you will have this seasonality.

Professor G. Venkatesh: You will have a lean season. So, if you are a company that is selling holidays, for example, obviously during the holiday period you will have sales. Other periods, you are not expected to have sales.

Professor M Suresh Babu: Exactly.

Professor G. Venkatesh: So, comparing the holiday period with the non-holiday period

Professor M Suresh Babu: It does not make sense, yeah. So, that is why this quarterly analysis or monthly or whatever financial ratios which we compute should also be looked at in a long, slightly long term perspective to take care of the seasonalities. I think, I think, GV, we will stop here.