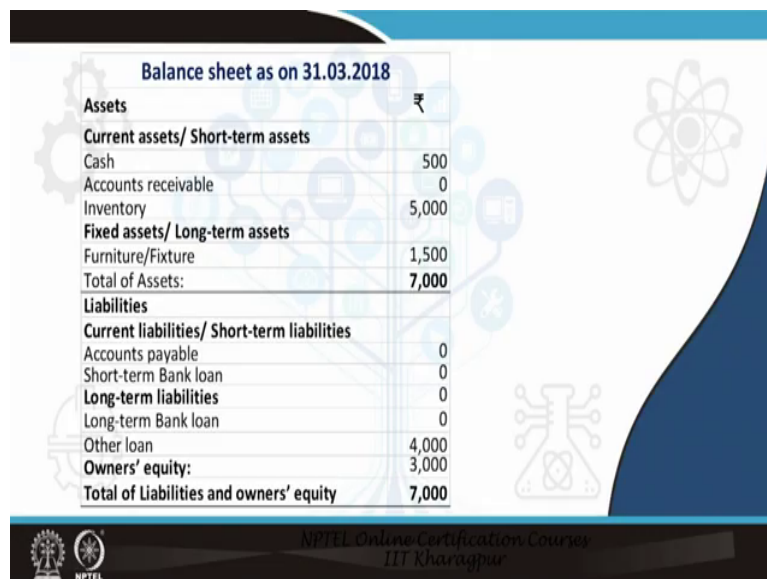


Entrepreneurship Essentials
Prof. Manoj Kumar Mandal
Rajendra Mishra School of Engineering Entrepreneurship
Indian Institute of Technology, Kharagpur

Module - 07
Lecture - 33
Introduction to Financial Statements
(contd.)

Hello and welcome. So, we will continue our discussion from the previous session, we started a firm, a gross a stationary shop in a room of a hostel and we are trying to build the balance sheet profit loss account and cash flow statement; through that we are going to demonstrate the meaning of these statements and how they are prepared, how they evolved, and then how we actually make them.

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The image shows a slide with a balance sheet table. The table is titled 'Balance sheet as on 31.03.2018' and is presented in a currency of ₹. The table is divided into Assets and Liabilities. Assets are further categorized into Current assets/ Short-term assets and Fixed assets/ Long-term assets. Liabilities are categorized into Current liabilities/ Short-term liabilities and Long-term liabilities. The total of Assets and the total of Liabilities and owners' equity both equal ₹7,000.

Balance sheet as on 31.03.2018	
Assets	₹
Current assets/ Short-term assets	
Cash	500
Accounts receivable	0
Inventory	5,000
Fixed assets/ Long-term assets	
Furniture/Fixture	1,500
Total of Assets:	7,000
Liabilities	
Current liabilities/ Short-term liabilities	
Accounts payable	0
Short-term Bank loan	0
Long-term liabilities	
Long-term Bank loan	0
Other loan	4,000
Owners' equity:	3,000
Total of Liabilities and owners' equity	7,000

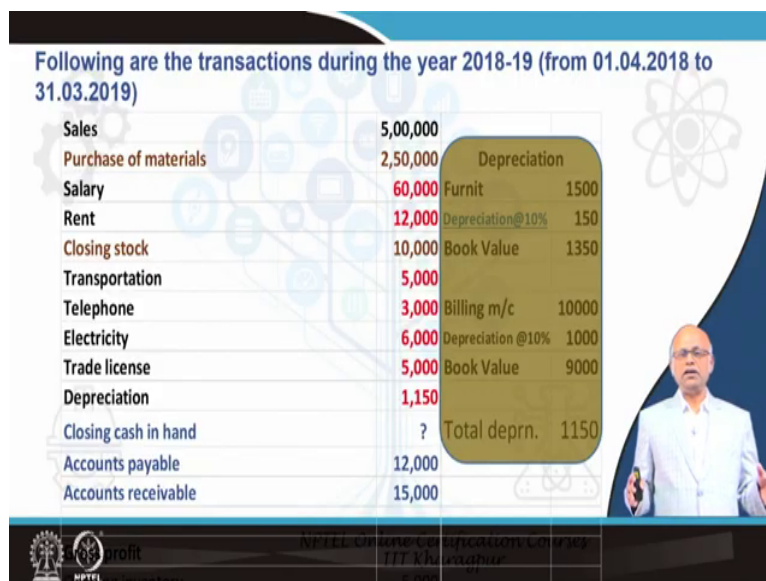
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So, we have seen that the student they say you are the student and you have procured the minimum required infrastructure like say furniture fixture of a rack, a counter and then eventually you during the year after use you have seen that you cannot really cope up with the demand you want, you need an additional hand. So, you have recruited a guy at the salary of 5000 rupees a month and for him you have bought a chair and a billing machine. Because without a billing machine you cannot keep track of the transactions that are happening.

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Following are the transactions during the year 2018-19 (from 01.04.2018 to 31.03.2019)

Sales	5,00,000		
Purchase of materials	2,50,000	Depreciation	
Salary	60,000	Furnit	1500
Rent	12,000	Depreciation@10%	150
Closing stock	10,000	Book Value	1350
Transportation	5,000	Billing m/c	10000
Telephone	3,000	Depreciation @10%	1000
Electricity	6,000	Book Value	9000
Trade license	5,000	Total deprn.	1150
Depreciation	1,150		
Closing cash in hand	?		
Accounts payable	12,000		
Accounts receivable	15,000		



So, with that we have all these other data that is representative of the operating performance of your company. Say you have made a sales of 5,000 5,00,000 rupees, then you have purchased total raw material of 2,50,000 rupees all these are data pertaining to different aspects of the business.

Say for example, all these aspects are captured in different ledger called general ledger. So, you have a general ledger by the name sales. So, whenever you make some sales this is entered into the sales registered, suppose some sales is returned back somebody returns you some good which is not which is damaged or defective. So, you reduce the sales at the same time when you make fresh sales you increase the sales.

Similarly, whenever you make purchase you enter into the purchase ledger other than you know entering into cash ledger or accounts payable ledgers you also enter in to purchase ledger. That is how purchase ledger keeps on growing and then at the end of the year you want to see what is the total purchase that you have made.

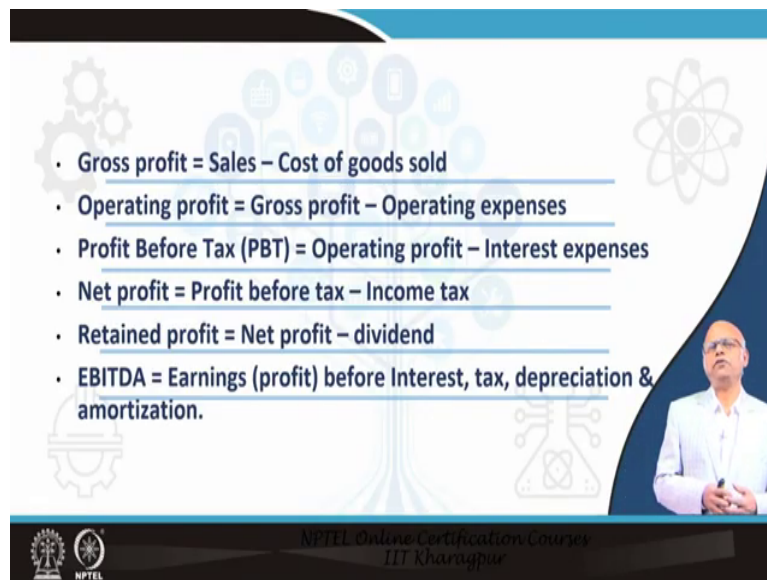
Similarly, their salary ledger will show you what is the total salary paid during the year similarly rent closing a stock is the stock that remains at the end of the business. On 31st March 2019 you looked into your shop and whatever you can see you took a stock of the inventory and you added them up and you found that total inventory as on 31st as on as at the close of business on 31st March is 10,000 rupees.

So, that is a balance sheet item that is not a profit loss account item coming to that. So, transported for transportation you have spent 5000 rupees, telephone 3000, electricity consumption or 6000 rupees these are all annual cost. So, this data is some kind of general ledger balances and many of them are expenses and many of them are balance sheet item. Balance sheet items are those which is kind of a closing balance that goes into the balance sheet, say for example, closing a stock is the position of the stock as on the close of business on 31st March.

Similarly, closing say account payable that is also closing, but you do not normally mention closing account payable is a ledger that keeps on growing or reducing depending on how you are making payment, how you are bringing goods on credit. So, if you go bring goods on credit your account payable ledger goes up, if you make payment this balance goes down likewise this is a balance sheet item. Account receivable all assets and liabilities are balance sheet item, all expenses or profit loss account item, revenue is a profit loss account item.

So, this distinction of is very important and this is one of the major part of confusion when you really want to start making a balance sheet. Nowadays there are accounting software, so you may you might very well question as to what is the point of learning all of that is very important point and most importantly you need to learn that whenever you will be trying to cut cost. So, you need to understand what is, what are the revenue items meaning what are variable in nature or fixed in nature that you can reduce and then you can you can manage your cost. So, that your break even comes down or say your you can sell at a lower price etcetera, we will discuss that in details.

(Refer Slide Time: 05:16)



The slide features a list of profit formulas on the left and a small inset image of a presenter on the right. The formulas are:

- **Gross profit = Sales – Cost of goods sold**
- **Operating profit = Gross profit – Operating expenses**
- **Profit Before Tax (PBT) = Operating profit – Interest expenses**
- **Net profit = Profit before tax – Income tax**
- **Retained profit = Net profit – dividend**
- **EBITDA = Earnings (profit) before Interest, tax, depreciation & amortization.**

The slide also includes the NPTEL logo and the text "NPTEL Online Certification Courses IIT Kharagpur" at the bottom.

I mentioned in the previous session that there are many kinds of profits and every item has a meaning. Gross profit is equal to sales minus cost of goods sold meaning your total sales in a year minus the cost of all those goods selling which you gain that sales; sales also is referred to as revenue. So, there is no point of confusing between the two many people use it as a

revenue, many people use it at sales. So, sales may have different different kind different elements like say other income, so that is not direct sales.

So, everything together actually is revenue total money coming in, but sales primarily is sales of goods that you produce or that you buy to sell. The next item of profit is operating profit that is estimated after you estimate gross profit because operating profit is equal to gross profit minus operating expenses, we will explain it later. Profit before tax is operating profit minus interest expenses, net profit is profit before tax and income tax paid on profit before tax.

So, you deduct income tax from profit before tax to get net profit, retained profit net profit minus dividend. So, net profit is the profit that belongs to the founders. So, founders can claim all the money whatever is the net profit, but then some portion of the money is retained in the business for future growth. So, you do not really take away all the money what you do is you declare a dividend meaning that suppose your profit is 1,00,000 rupees. So, you may think that let me take 40,000 rupees and let me keep 60,000 rupees back to the business, so that business grows with that money.

So, whatever you pay to the founders to the equity holders that is termed as dividend and after payment of dividend whatever is retained that is called retained profit in American language it is retained earning, in US earning is used in lieu of profit. So, they do not call net profit they say net earning. So, earning is confusing because in Indian context earnings means sometimes casually we refer to revenue or sales, but earning actually is profit.

So, retained profit is nothing, but retained earning which is equal to retained profit net profit minus dividend. What is retained profit? Retained profit is transferred to the balance sheet after estimating profit loss account whatever is the net profit you pay dividend retained profit goes to the balance sheet and is added up with the reserves and surplus. EBITDA; EBITDA is very frequently used by invest by analysts particularly in equity research, equity analysts, analysis in all those things EBITDA is very frequently used.

EBITDA means earning; earning means profit, profit before interest before tax before depreciation before amortization. So, before all those items you estimate EBITDA. So, EBITDA is indicates something I am going to explain in the next slide perhaps.

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Profit Margin is percentage profit with respect to sales

$$\text{Gross Profit Margin} = \frac{\text{Gross profit}}{\text{Sales}} \times 100$$
$$\text{Operating Profit Margin} = \frac{\text{Operating profit}}{\text{Sales}} \times 100$$
$$\text{Net Profit Margin} = \frac{\text{Net profit}}{\text{Sales}} \times 100$$
$$\text{EBITDA Margin} = \frac{\text{EBITDA}}{\text{Sales}} \times 100$$

Notice that the denominator is always 'sales'.

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So, what is the formula these are all profits; these are all profits, but then profit why this profits let us me explain is it fast? Because you want to compare 2 companies on the same standard, EBITDA on the same scale.

So, suppose you are comparing Tata steel which says JSW steel whose performance is better. So, you may see that Tata steel makes a profit of net profit of this JSW makes a net profit of that. So, whichever is more you may tend to say that that company is better that is not an apple and apple comparison why because Tata steel sales will be different compared to JSW

sales. Even if you make a sales a net profit percentage based on sales that also may not give you a good idea because JSW is a new company, Tata steel is an old company.

So, Tata steel has high depreciation and a low depreciation whereas, JSW may have high depreciation because JSW plant is new. So, their depreciation is likely to be high whereas, Tata steel many of the machines are fully depreciated. So, their depreciation may or may not be may not be high compared to JSW. Similarly, because JSW is a new company, so they might have borrowed more money. So, their interest expense might be more than Tata steel.

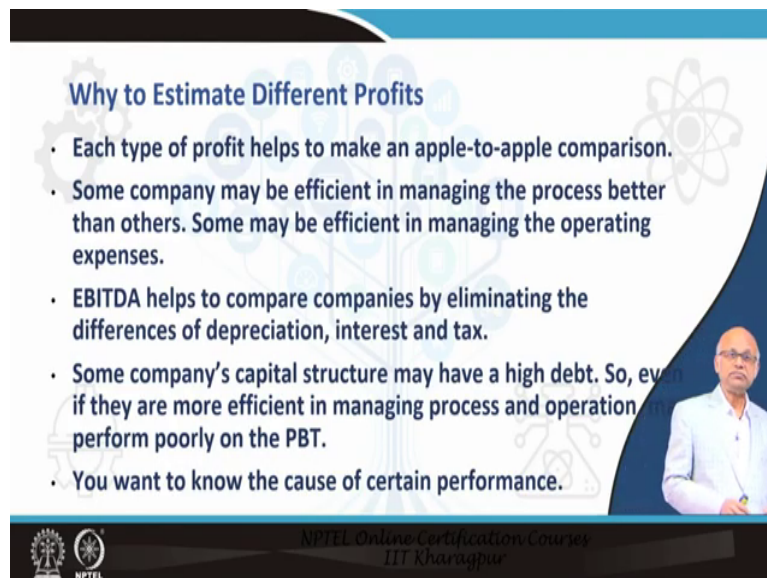
So, operationally or say process wise whether JSW is more efficient compared to Tata steel or Tata steel is more efficient to JSW to make this comparison you need to understand gross profit margin, you need to understand operating profit margin, you need to understand net profit margin all of them even EBITDA margin. So, EBITDA margin actually compares apple and apple because it is taking away depreciation amortization, tax interest all of that, it is just giving you some kind of operational performance.

So, how the company how operationally efficient is the company. So, suppose company a has operating profit margin of say 30 percent whereas, company b has 25 percent. So, a is operationally more efficient likewise there may be many many comparison on many many context that is why all those profits actually signify a lot of information. So, people are interested in those information particularly if you are funding a company you would like to know how the company, how profitable is the company. So, as to be able to service the interest burden what kind of interest burden they are servicing at this point of time, how they are going to perform moving forward after they raise new loans.

So, for making a sensitivity analysis. Say sensitivity analysis we say we raw material price, so variation suppose raw material prices vary by 1 percent how the profit varies to a company, what percentage of profit is reduced by variation of 1 percent of raw material price say increase of raw material price. So, all that actually is very important and that is why we estimate margin rather than profit because profit is a term that indicates that quantum of profit, but then this it has some relation with the total sales also.

So, we divide profit by sales in to 100 we get the margin, so that we can make a comparison. So, gross profit margin is nothing, but gross profit divided sales multiplied by 100 and the (Refer Time: 12:06). Notice that the denominator is always sales, so all the margins that are calculated profit margin calculated based on sales. Sales is the common denominator.

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Why to Estimate Different Profits

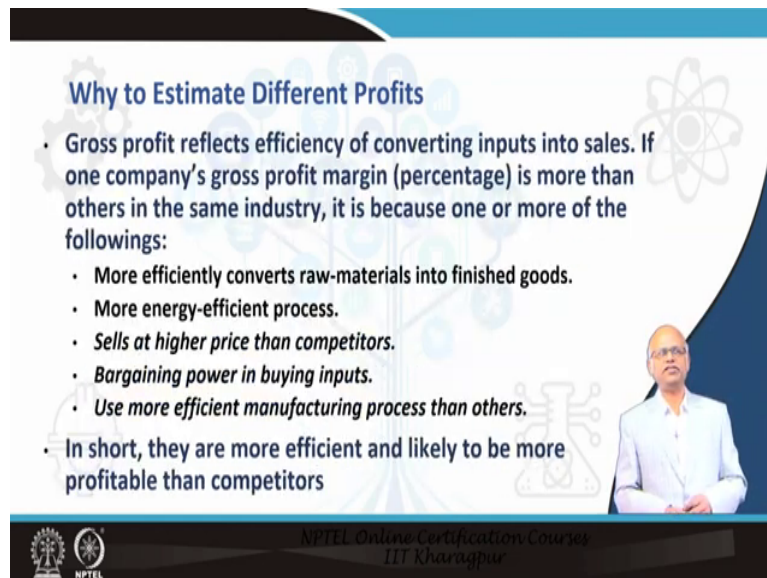
- Each type of profit helps to make an apple-to-apple comparison.
- Some company may be efficient in managing the process better than others. Some may be efficient in managing the operating expenses.
- EBITDA helps to compare companies by eliminating the differences of depreciation, interest and tax.
- Some company's capital structure may have a high debt. So, even if they are more efficient in managing process and operation they perform poorly on the PBT.
- You want to know the cause of certain performance.

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Why to estimate different profit I have already explained, but you just remember that you want to make a make an apple to apple comparison particularly the industries background will be different. And remember another thing is that you can only make a comparison between companies in the same domain.

Otherwise there is not much correlation and there is not much similarity. Suppose in steel industry the gross profit margin might be say 30 in software industry gross profit margin might be 65 percent.

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Why to Estimate Different Profits

- Gross profit reflects efficiency of converting inputs into sales. If one company's gross profit margin (percentage) is more than others in the same industry, it is because one or more of the followings:
 - More efficiently converts raw-materials into finished goods.
 - More energy-efficient process.
 - Sells at higher price than competitors.
 - Bargaining power in buying inputs.
 - Use more efficient manufacturing process than others.
- In short, they are more efficient and likely to be more profitable than competitors

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So, this comparison cannot be made across industries. For example, just to elaborate the point further say what does gross profit signify? Gross profit actually signify suppose a company is has higher gross profit margin this means, that the company is more efficient to convert raw material into finished goods.

Maybe out of 1 ton of iron ore perhaps a company manufacture 0.5 ton of iron ores another company manufacture, 0.4 ton of iron another company perhaps manufacture 0.6 tons of iron, why so? Because the iron content in the ore may be may be different because their raw material itself is of different quality or maybe their process itself the blast furnace or electric

arc furnace whatever that is maybe they are more capable more efficient or the people who are handling them are more intelligent whatever that is.

So, this process gives this gross profit percentage gives an indication that this company is more efficient in converting raw material into finished goods and perhaps demand more price because maybe their quality is better. So, gross profit means sales minus cost of goods sold cost involved raw material cost, labor cost, utility cost likes a power fuel etcetera. So, all these how efficiently you are able to manage it depends on your gross profit margin.

Suppose it supposes for some company that utility cost is very high electricity cost is very high or their system is such that it is consuming more energy it is less energy efficient. So, their gross profit margin will be less.

So, by looking at gross profit margin across a particular across companies in a particular industry you will be able to identify which company in these industry in this industry is more efficient compared to other industries. Then again there are other factors like we cannot go to that extent, but then if you have data you can you can estimate what is the raw material cost purchase percentage to sales. If you see that raw material cost percent is to sales is 20 percent for some company, 25 to another company.

So; obviously, the other company is less efficient in using raw material or the raw material quality is worst than the other company. Likewise you may have a bargaining power to bargain low price for supply of raw material, say iron ore you have a captive mine and your mine your extracting the ore may be more efficient cost effective then buying the ore from some other company or may be importing. So, there lies some efficiency. So, in gross profit we capture all these information.

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Operating Profit Margin is Combination of Processing and Operational efficiency.
However, it does not take into account the differentiation caused due to cost of financing across companies.
PBT margin takes into account the finance costs.
Net profit margin takes into account the income tax management.

The slide features a blue and white color scheme with decorative icons of a gear, a tree, and a chemical flask. A presenter in a white shirt is visible in the bottom right corner. The footer includes the NPTEL logo and the text 'NPTEL Online Certification Courses IIT Kharagpur'.

So, let us move forward. Operating margin on the other hand is a combination of processing efficiency like gross profit margin is already included there and operating efficiency.

Suppose your operating expenses are less. So, your operating profit margin will be better, but then operating profit is estimated based on gross profit because gross profit minus operating expense is operating profit. So, gross profit efficiency is already subsumed in operating profit, but then operating profit may not actually reflect the variation in gross profit margin because operating a operationally you may not be that efficient they may not be exactly at par with the gross profit or the operation sorry processing efficiency.

However, it does not take into account the differentiation caused due to cost of financing across company, some company operating profit is estimated before allowing interest cost. So, operating profit percentage does not include interest cost that therefore, if two you are

comparing two companies; one company has no interest payment another company has high interest payment. Operating profit margin may give different impression about their real performance moving forward meaning in net profit percentage basis that is how we have to estimate more and more profit.

So, profit before tax is estimated by deducting interest expenses from operating profit. So, you have to estimate profit before tax and then estimate profit before tax margin to understand how the profitability varies across companies after payment of interest that also is very important, then comes net profit margin.

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Cost of goods sold	
Opening stock of materials	5,000
Purchase	2,50,000
Closing stock of materials	10,000
Cost of goods sold	2,45,000

Opening stock data is obtained from previous year balance sheet. It is the closing stock of previous year.

$$\text{Cost of goods sold} = \text{Opening inventory} + \text{Purchase during the year} - \text{Closing Inventory}$$

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So, let us estimate these profits for our sample company the company that you have started in the hostel. So, first thing is we have to estimate cost of goods sold because gross profit is nothing but sales minus cost of goods sold. So, let us see how this is estimated. If you

remember that cost of goods sold is nothing, but the goods that you consumed to achieve the sales by selling the goods that is the cost of goods. So, it is the cost of the goods that you sold to achieve that sales. So, whatever you sold you have to estimate what was the goods that you sold and then you estimate what is the cost of that goods.

So, how do you estimate that? See at the beginning of the year when you woke up early in the morning of 1st of April 2019 you (Refer Time: 18:35) into your stock resistor or maybe your shop and you saw there is some stock. So, on 31st March of 2018 before previous year at the close of the business on 31st March of 2018 which is the starting of the business you saw 5000 rupees of stock because you bought only 5000 worth of a stock.

That becomes the opening a stock of the next year because you woke up early in the morning on 1st of April. So, opening stock is 5000 rupees. Now, you bought 2,50,000 worth of stock during the whole year starting from third 1st of April 2018 to 31st March 2019. So, during this whole year you bought a stock of 2,50,000 rupees.

Now, at the end of the current year that is 2018-19 starting from 1st of April 2018 to 31st March 2019 at the end of this year that is as on 31st March 2019 your closing stock is 10,000 rupees that you physically see nobody this is information is available right we before you because you just count your stock and then take a take an inventory. So, you add them up whatever the pens paper books and etcetera suppose you see that the sum total of them if 10,000 that is the closing stock.

Now, you started the business with 5000 rupees, so that was available a stock, then you bought 2,50,000 rupees. So, 5000 plus 2,50,000 is 2,55,000 rupees of stock was available, but you could not sell all the 2,55,000 rupees worth of stock because you are left with 10,000 at the end of the year. So, 2,55,000 minus 10,000 is 2,44,000 thousand rupees that is a cost of goods that you sold. And then you deduct this from sales it is the same slide repetition.

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For the purpose of estimating 'Materials consumed' to derive 'Gross Profit' previous year's 'Closing stock' is current year's 'Opening stock'.

Year 2017-18	Year 2018-19		Year 2019-20
As on 31.03.2018	As on 01.04.2018	As on 31.03.2019	As on 01.04.2019
Closing stock: ₹7,000	Opening stock: ₹7,000	Closing stock: ₹8,500	Opening stock: ₹8,500


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So, you deduct that from sales to find out whatever is the gross profit; gross profit is nothing, but sales minus cost of goods sold.

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Sales	5,00,000
Gross profit	
Opening stock of materials	5,000
Purchase	2,50,000
Closing stock of materials	10,000
Cost of goods sold (CoGS)	2,45,000
Gross profit = (sales - CoGS)	2,55,000

Opening stock data is obtained from previous year balance sheet. It is the closing stock of previous year.




So, it is 2,55,000 rupees because sales is 5,00,000 minus 2,45,000 is 2,55,000 rupees.

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Depreciation	
Furniture	1500
Depreciation @10%	150
Book value net of depreciation	1350
Billing m/c	10000
Depreciation @10%	1000
Book value net of depreciation	9000
Total depreciation	1150

Depreciation is gradual apportioning of the cost of a tangible asset over its useful life span. Businesses depreciate long-term assets mostly differently for accounting and tax purposes.

Detailed discussion on methods of depreciation and their significance would be made later



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We have already talked about depreciation we will be discussing that in detail. For the time being furniture totals total worth of furniture or book value of the furniture at the start of the business was 15,000 rupees 1500 rupees and wear and tear or depletion of value during the year is on a ballpark basis.

We allow some percentage and hypothetically we have taken 10 percent as depreciation for this example. So, during the year furniture fixer is presumed to deplete or or reduce the value to the extent of 10 percent of its book value at the beginning of the business. So, at the beginning of the business the book value was 1500 rupees we allow 10 percent as depreciation which is 150 rupees deduct that we get 1350 rupees. So, that is the book value or net of depreciation net fixed net value of the furniture as on 31st March 2019.

So, that is book value after allowing depreciation. So, this year the book value will be 1350 rupees, next year again we start with this book value we depreciate it on 1350 10 percent of that that becomes 135. So, after 1350 minus 135 will be the book value in the next year.

Similarly, billing machine we bought for ten thousand rupees, so depreciation rate is 10 percent; that means, the billing machine is depleting value during the year due to operation, due to becoming old, due to wear and tear to the extent of 10 percent of its value as at the beginning of the year.

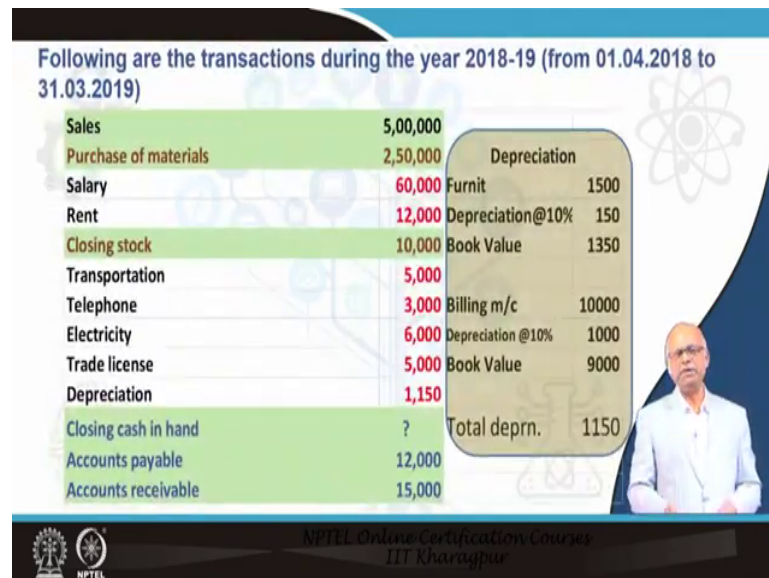
Beginning of the year value will be available in the previous year's balance sheet. So, previous year's balance sheet the value was 10,000 rupees that was the book value as in the previous year's balance sheet date and we allow depreciation of 10 percent. So, 10 percent is 1000 rupees 10,000 minus one thousand is 9,000. So, 9000 rupees is the book value as on the date of closing of business of this year; that means, as on 31st March 2019 the book value of billing machine is 9000 rupees. So, depreciation on furniture is 150, depreciation on billing machine is 1000, sorry 1000 total is 1150 rupees.

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Following are the transactions during the year 2018-19 (from 01.04.2018 to 31.03.2019)

Sales	5,00,000		
Purchase of materials	2,50,000		
Salary	60,000		
Rent	12,000		
Closing stock	10,000		
Transportation	5,000		
Telephone	3,000		
Electricity	6,000		
Trade license	5,000		
Depreciation	1,150		
Closing cash in hand	?		
Accounts payable	12,000		
Accounts receivable	15,000		

Depreciation	
Furnit	1500
Depreciation@10%	150
Book Value	1350
Billing m/c	10000
Depreciation @10%	1000
Book Value	9000
Total deprn.	1150



Now, we have estimated the gross profit to estimate the operating expenses you need the information on depreciation and that is why we have discussed the depreciation before estimating operating profit. So, let us identify out of all the information's information which were available to us which are part of operating expenses.

See sales we have already taken into account, sales is not an expense it is just revenue. Purchase of material has already been taken into account in estimating gross profit and gross profit margin. So, salary is operating expense, rent is operating expense, closing a stock is a balance sheet item. At the end of the business whatever is the stock that remains unsold is the closing a stock that remains in balance sheet as closing inventory or closing stock.

Transportation expense is a operating expense, telephone electricity trade license depreciation these are part of operating expense. Closing cash in hand will be available from your cash book at the same time you have to estimate it through in the process of cash flow statement.

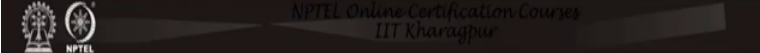
The end of cash flow statement you will find net cash flow you should add that to the cash balance in the previous year's balance sheet to get the cash balance as of the end of business of this year that should come here as closing cash in hand and that should match with your cash that is there. So, you should make a balance to avoid any kind of accounting anomaly.

Accounts payable is a balance sheet item that is a liability, accounts receivable is an asset that is also a balance sheet item, assets liabilities are balance sheet items.

(Refer Slide Time: 24:59)

Let us estimate the operating expenses for the year 2018-19 (i.e. the year starting on 01.04.2018 and ending on 31.03.2019)

Salary	60,000	Furnit	1500
Rent	12,000	Depreciation@10%	150
Transportation	5,000		
Telephone	3,000	Billing m/c	10000
Electricity	6,000	Depreciation @10%	1000
Trade license	5,000	Book Value	9000
Depreciation	1,150		
Operating expenses	92,150	Total deprn.	1150



So, we pick up those items at one place and then estimate the operating expenses, here operating expenses is 92,150 rupees adding all of them up including depreciation.

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Gross profit margin %	51
Operating expenses	93,500
Operating profit	1,61,500
Interest	0
Profit before tax	1,61,500
Income tax @30%	48,450
Net profit	1,13,050

Note that the profit of proprietorship firm is clubbed with personal income of the proprietor. All income tax benefits of personal income is available.
We have considered 30% only for demonstration. The Current rate is about 22%

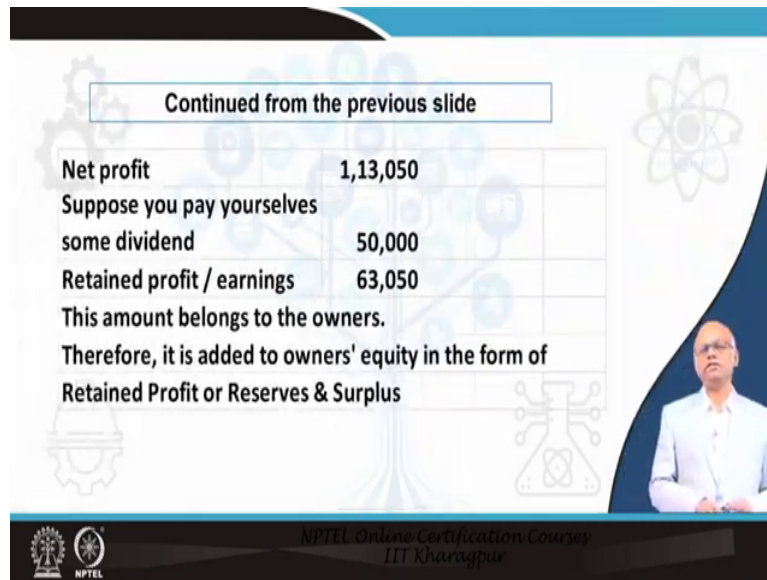
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So, before now we have already seen that gross profit was 2,55,000 rupees. So, what is the gross profit margin? 2,55,000 divided by 5,00,000 rupees is 51 percent. Then operating expenses was 93,500, so operating profit margin is 93,500 divided by sales of 5,00,000 which is whatever is the percentage. Then interest there is no interest because we have not paid any interest to any because we do not have loan, we have a private loan from a friend and he is not interested in any interest. So, we are not paying any interest.

So, operating profit becomes the same as profit before tax because we are not paying any interest. Then income tax, normally it is 22 percent as per new rule 17 to 22 percent, but for round figure we have taken as 30 percent. So, 30 percent of profit before tax is income tax, so

our income tax is 48,450 deduct that from profit before tax we get net profit which is 1,13,050.

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Continued from the previous slide

Net profit	1,13,050
Suppose you pay yourselves some dividend	50,000
Retained profit / earnings	63,050

This amount belongs to the owners.
Therefore, it is added to owners' equity in the form of Retained Profit or Reserves & Surplus

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Now, this money belongs to the founders this whole money that is 1,13,050. So, you started the business this money belongs to you can take it home you can spend the money do whatever you like, but you may decide that let me not eat all the profit because mine business needs to grow. So, you plow back some of the profits back to the business, so that business grows.

So, you decide that let me take 5,00,000 rupees as dividend. So, this money goes out of the business to your personal account and 63,050 goes to the balance sheet and gets added of to the reserves and surplus. So, reserves and surplus keeps on adding this way and here is a sample profit loss account statement.

(Refer Slide Time: 27:01)

https://www.bseindia.com/

Look at 'Get Quote' text box

Type part of company name

Choose from drop-down menu

Look for 'Results'

Under 'Results' click on 'Annual Report' link

Source: <https://www.bseindia.com/bseplus/AnnualReport/500325/5003250319.pdf>

	Notes	2018-19	2017-18
INCOME			
Value of Sales		4,01,139	3,14,917
Income from Services		607	460
Value of Sales & Services (Revenue)		4,01,746	3,15,377
Less: GST Reversal		16,302	16,622
REVENUE FROM OPERATIONS	24	3,85,444	2,98,755
Other Income	25	9,439	8,221
Total Income		3,94,883	3,06,976
EXPENSES			
Cost of Material Consumed		2,65,236	2,06,029
Purchase of Stock-in-Trade		9,239	7,269
Change in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade	26	12,294	12,232
Basic Duty and Service Tax		11,895	12,261
Employee Benefits Expense	27	1,134	4,760
Finance Costs	28	9,752	4,654
Depreciation / Amortisation and Depletion Expense	1	25,338	9,588
Other Expenses	29	35,845	31,496
Total Expenses		3,66,699	2,87,889
Profit Before Tax		47,987	48,525
TAX EXPENSES			
Current Tax	13	9,440	8,913
Deferred Tax	17	2,704	3,395
Profit for the Year		35,843	36,217

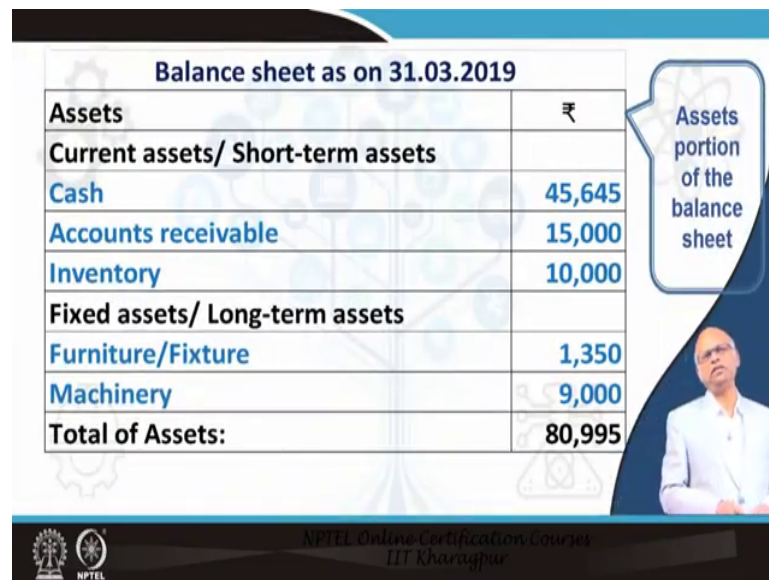
Now, see this this belongs to reliance industries and this is as on 31st March 2019 So, you can get this balance sheet using the link that is at the right hand corner how to get this you can directly get it from bseindia dot com you open this this site bseindia dot com then you find a text box it is mentioned as get quote.

So, put reliance industries there or a part of the name, then a drop down menu will pop up and then you select reliance industries. Now, click that then you find lot of information available on the landing page, but then you click on annual state annual report.

So, you click annual report you will find a list of all annual reports in the history of the company whatever reports they published. So, click on 2019 and scroll down to the pages

where this profit loss account statement is available and you find how these statements are made, they have more exhaustive items and ours is a very simplistic case

(Refer Slide Time: 28:11)



A slide from an NPTEL course showing a balance sheet as of 31.03.2019. The table lists assets in two categories: Current assets/ Short-term assets and Fixed assets/ Long-term assets. A callout box points to the 'Assets' section, stating 'Assets portion of the balance sheet'. A small video inset shows a man in a white shirt speaking.

Balance sheet as on 31.03.2019	
Assets	₹
Current assets/ Short-term assets	
Cash	45,645
Accounts receivable	15,000
Inventory	10,000
Fixed assets/ Long-term assets	
Furniture/Fixture	1,350
Machinery	9,000
Total of Assets:	80,995

Now, let us prepare the balance sheet. So, this cash position will not be available unless you prepare the cash flow statement I have populated it because I populated from an excel sheet, but think for a moment that 45,645 is not available it is to be it has to come from cash flow statement.

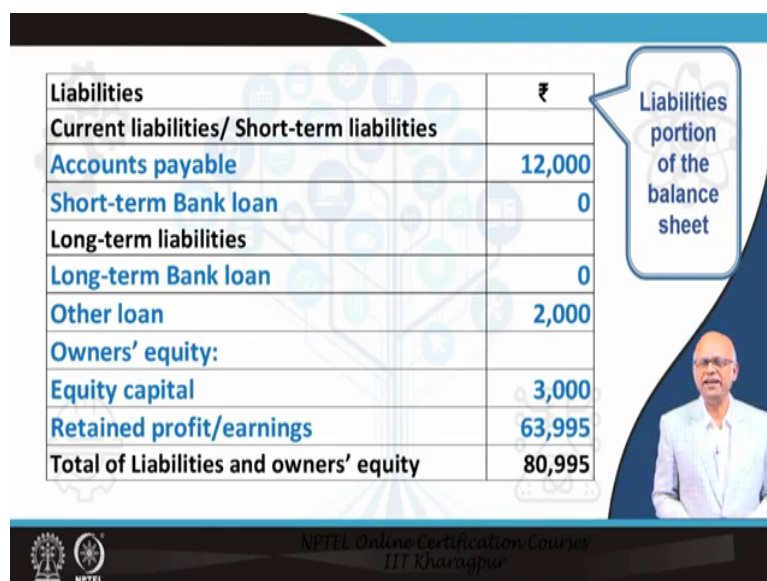
At the beginning I mentioned that when you have the information and you are sitting to manually build the financial statements you have to start with profit loss account because one information from profit loss account goes to the balance sheet and that is retained earning, retained profit without that information you cannot complete balance sheet statement.

Without another information you cannot complete balance sheet is position of cash; cash in hand and bank that also will be available from cash flow statement.

So, unless you complete cash flow statement you would not be able to complete balance sheet, but then you cannot start making cash flow statement at the beginning because many of the information in cash flow statement will be available in balance sheet. So, balance sheet and cash flow statement statements are to be made simultaneously. Prepare balance sheet as much as possible, then prepare cash flow statement and then come back to balance sheet to populate the cash position and then you have all the three statements.

So, these information most of the information in balance sheet are already available, it is already given because these are available from general ledgers. And, you have all the ledgers in front of you like you have accounts receivable available inventory, that is the closing stock available, then furniture fixer you have estimated from depreciation chart.

(Refer Slide Time: 29:51)



Liabilities	₹
Current liabilities/ Short-term liabilities	
Accounts payable	12,000
Short-term Bank loan	0
Long-term liabilities	
Long-term Bank loan	0
Other loan	2,000
Owners' equity:	
Equity capital	3,000
Retained profit/earnings	63,995
Total of Liabilities and owners' equity	80,995

Liabilities portion of the balance sheet

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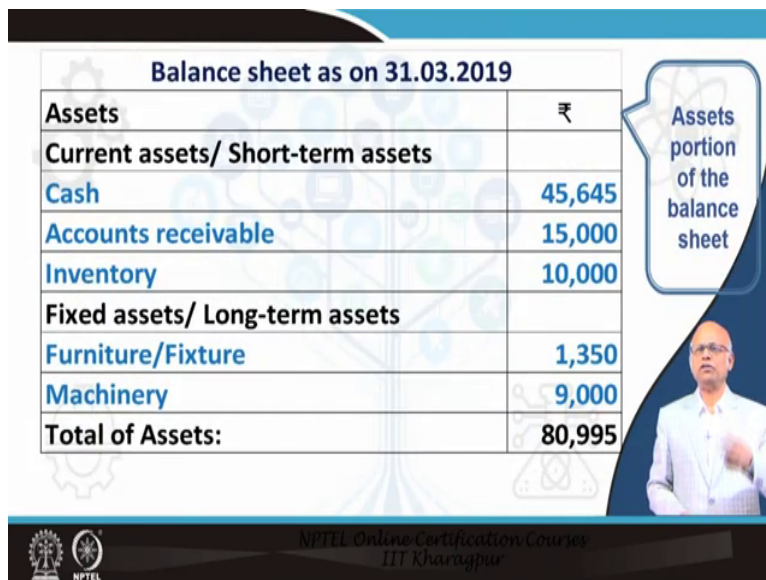
Then machinery after depreciation whatever is there is available, accounts payable available from general ledger you do not have any short term bank loan, long term bank loan or you have some other loans you borrowed 4000 rupees from your friend and you have repaid 2000 rupees might not have mentioned it, but you have repaid 2000 rupees.

So, the balance loan that is to be repaid is 2000 which should remain in the balance sheet. Balance sheet shows as of this date that is 32,019, the loan outstanding is only 2000 meaning you have to pay your friend another 2,000 rupees. The other items is owner owners equity; first item is equity capital you have invested 3000 rupees at the beginning if you remember. You brought three thousand rupees you borrowed four thousand rupees to make 7000 rupees to start this business.

So, equity capital is still 3000 rupees as long as you are not bringing in new money usually equity capital normally do not, does not reduce because you normally do not take away money from equity unless you write it down. Then as I said whatever profit you plow back out of net profit after distribution of dividend that comes here and added up with retained profit or reserves and surplus.

So, retained profit of 63,995 this year and previous years balance was 0. So, 0 plus that is 63,000 total is 80,995, this is the total of the liability side, this is the total of asset side.

(Refer Slide Time: 31:20)



The image shows a balance sheet for the year ending 31.03.2019. The table is divided into two main sections: Current assets/ Short-term assets and Fixed assets/ Long-term assets. The total of assets is 80,995. A callout box on the right side of the table points to the 'Assets' section and contains the text 'Assets portion of the balance sheet'. The background of the slide features a faint gear and circuit pattern. At the bottom, there is a logo for NPTEL and the text 'NPTEL Online Certification Course IIT Kharagpur'.

Balance sheet as on 31.03.2019	
Assets	₹
Current assets/ Short-term assets	
Cash	45,645
Accounts receivable	15,000
Inventory	10,000
Fixed assets/ Long-term assets	
Furniture/Fixture	1,350
Machinery	9,000
Total of Assets:	80,995

You can very well see that they are exactly the same.

(Refer Slide Time: 31:24)

Balance sheet as on 31.03.2019	
Assets	₹
Current assets/ Short-term assets	
Cash	45,645
Accounts receivable	15,000
Inventory	10,000
Fixed assets/ Long-term assets	
Furniture/Fixture	1,350
Machinery	9,000
Total of Assets:	80,995
Liabilities	
Current liabilities/ Short-term liabilities	
Accounts payable	12,000
Short-term Bank loan	0
Long-term liabilities	
Long-term Bank loan	0
Other loan	2,000
Owners' equity:	
Equity capital	3,000
Retained profit/earnings	63,995
Total of Liabilities and owners' equity	80,995

Complete balance sheet
As on 31.03.2018

And here is the balance sheet in one page.

(Refer Slide Time: 31:29)

Consolidated

BALANCE SHEET

Reliance Industries Ltd

As at 31st March, 2019

IN Crores

	Notes	As at	
		31st March, 2019	31st March, 2018
ASSETS			
NON-CURRENT ASSETS			
Property, Plant and Equipment	1	1,11,114	1,14,111
Capital Work in Progress	1	1,50,178	1,48,329
Goodwill		11,917	1,811
Other Intangible Assets	1	84,352	82,845
Intangible Assets Under Development	1	29,216	30,852
Financial Assets			
— Investments	2	1,64,549	25,229
— Loans	3	8,813	2,688
Deferred Tax Assets (Net)	4	4,776	1,075
Other Non-Current Assets	5	12,878	1,813
Total Non-Current Assets		7,24,482	6,82,562
CURRENT ASSETS			
Prepayments	6	87,561	66,117
Financial Assets			
— Investments	7	75,839	57,889
Trade Receivables	8	30,889	27,558
Cash and Cash Equivalents	9	7,512	6,259
Loans		945	2,372
Other Financial Assets	10	12,418	8,846
Other Current Assets	11	38,804	32,755
Total Current Assets		2,24,088	1,83,796
Assets Held for Sale	10	4,462	—
Total Assets		9,52,498	8,66,358

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So, have a better view of that, here is the balance sheet of reliance industries you can pause and slightly enlarge the screen and see.

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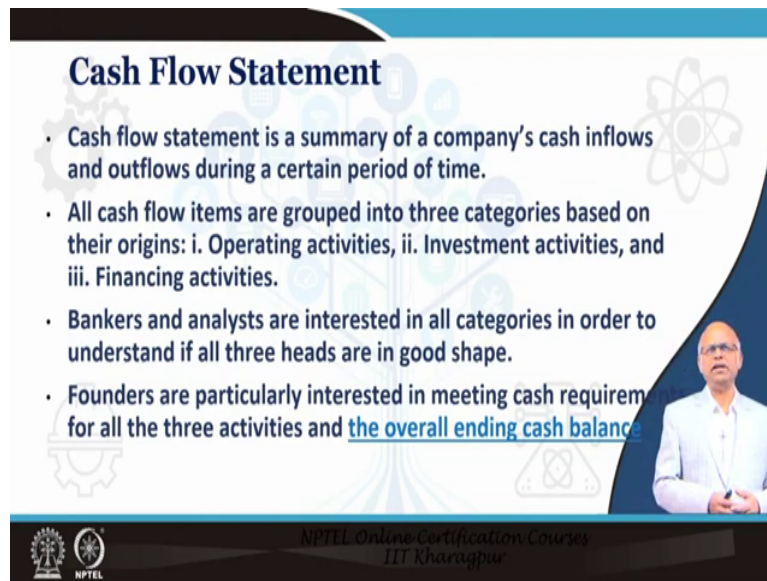
EQUITY AND LIABILITIES			
EQUITY			
Equity Share Capital	13	5,926	5,922
Other Equity	14	3,81,186	2,87,264
Non-Controlling Interest		8,290	3,339
LIABILITIES			
Non-Current Liabilities			
<i>Financial Liabilities</i>			
— Borrowings	15	2,07,506	1,44,175
— Other Financial Liabilities	16	10,020	4,542
Deferred Payment Liabilities		18,879	20,210
Provisions	17	2,856	2,806
Deferred Tax Liabilities (Net)	4	49,523	29,614
Other Non-Current Liabilities		545	—
Total Non-Current Liabilities		2,88,892	2,05,451
Current Liabilities			
<i>Financial Liabilities</i>			
— Borrowings	18	64,436	37,420
— Trade Payables	19	1,08,309	1,06,861
— Other Financial Liabilities		87,051	1,25,151
Other Current Liabilities	20	52,961	43,179
Provisions	21	1,325	1,712
Total Current Liabilities		3,14,023	3,13,852
Liabilities directly associated with Assets Held for Sale	39	3,222	—
Total Liabilities		6,07,615	5,19,303
Total Equity and Liabilities		10,02,496	8,16,343
Significant Accounting Policies			
See accompanying Notes to the Financial Statements	1 to 42		

**Reliance
Industries Ltd**

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One part of the balance sheet the other part of the balance sheet.

(Refer Slide Time: 31:41)



Cash Flow Statement

- Cash flow statement is a summary of a company's cash inflows and outflows during a certain period of time.
- All cash flow items are grouped into three categories based on their origins: i. Operating activities, ii. Investment activities, and iii. Financing activities.
- Bankers and analysts are interested in all categories in order to understand if all three heads are in good shape.
- Founders are particularly interested in meeting cash requirements for all the three activities and the overall ending cash balance.

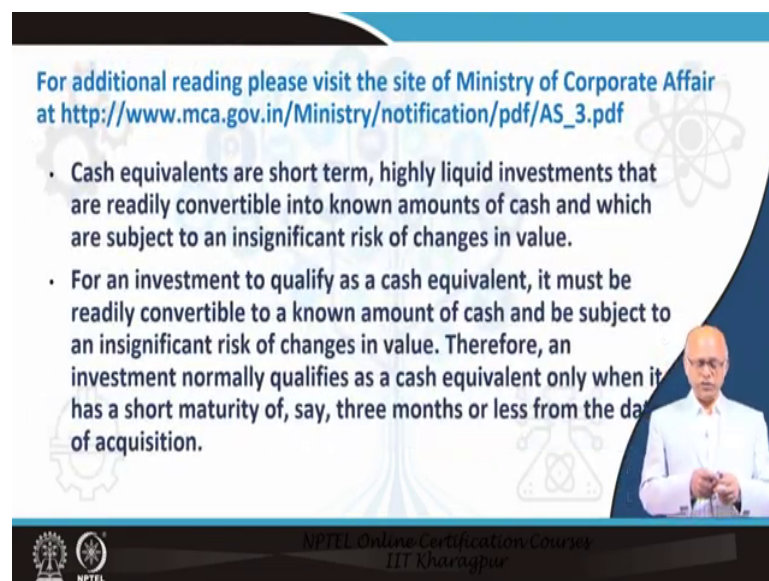
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Cash flow statement; cash flow statement is a summary of companies cash inflow and cash outflow during a certain period, it may be a quarterly cash flow statement, half yearly cash flow statement or annual cash flow statement. All cash flow items are grouped into three sections. So, one is cash flow happening from operating activities, cash flow happening out of investment activities, cash flow happening out of financing activities.

So, these three activities why they are separate because any analyst particularly bankers will be interested to know how the cash flow has happened from what sources, from what operating cash flow. Usually or ideally cash flow should more cash flow should happen or positive cash flow cash inflow should happen out of operating activities from where you are actually making profit this is the reflection of business efficiency.

Whereas, if you are financing your business through borrowing and cash flow become positive year after year through borrowing its actually ill health you are creating problem for the company and that is how many companies fail into debt trap by managing negative cash flow by borrowing more money making it positive etcetera.

(Refer Slide Time: 33:08)



For additional reading please visit the site of Ministry of Corporate Affairs at http://www.mca.gov.in/Ministry/notification/pdf/AS_3.pdf

- Cash equivalents are short term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value.
- For an investment to qualify as a cash equivalent, it must be readily convertible to a known amount of cash and be subject to an insignificant risk of changes in value. Therefore, an investment normally qualifies as a cash equivalent only when it has a short maturity of, say, three months or less from the date of acquisition.

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Particularly founders and bankers are more interested to the cash flow from operating activities and they have to really look into the into the growing nature of the cash flow whether it is growing up or down and how they are managing. And if they see that cash flow is going to become negative moving forward they have to arrange money well in advance.

There are other items in cash flow which is not really cash, but their cash equivalent like say receivables going up accounts receivable. How accounts receivables go up? They go up by in

the process of selling more on credit you sell 1,00,000 worth of finished goods to a party and he does not pay up your receivable goes up by 1,00,000 rupees.

On the other side you bring you buy raw material of say 50,000 rupees from a person and you do not pay up. So, your accounts payable goes up, but then you get the raw material without making payment that is a wonderful thing you do business with that raw material; that means, you are doing business on somebody else's money that is a that is a wonderful things to happen to any industry.

Do not take it negatively, but most of the companies they are strive to get more and more credit. So, that they can do business on other peoples money and they try to reduce receivable. So, that the money flow is good and the more efficient you are the better you are.

And any company with a strong brand with strong loyal customer base are capable of managing both sides so efficiently. Because the dealers distributors would like to be remain with you and they will pay you money in advance to buy your product at the same time the suppliers will be more interested to supply you because they know that you have a strong brand your business is not likely to fail in a quick time. So, they want to remain associated with your company.

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Indirect Method: Cash Flow from Operational Activities

Total cash flow from operating activities =

- + Net profit (known as Net Income in USA)
- + Depreciation (This was deducted as expense. But no cash went out)
- + Losses from sale of fixed assets, if any.
- Gains from sale of fixed assets, if any.

(Note that sales value will be included in in cash flow from investment activity)

- Increase in current assets.
- + Decrease in current assets.
- + Increase in current liabilities
- Decrease in current liabilities

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Cash flow analysis has two methods; one is direct another indirect. The direct methods includes all the expenses, all the revenue items. So, they are kind of a big huge long list of items leading off to the net cash flow whereas, indirect methods starts with the net profit.

So, they do not talk about sales and other expenses whatever is the net profit this starts from there. So, operating cash flow statement includes net profit depreciation, losses for sale of fixed asset or gains from sale of fixed asset if you. If there is say increase in current asset if current asset goes up; that means, cash has gone in to make those current asset or decrease in current asset meaning that cash has been released in the process of decreasing in current asset.

See means with liabilities if current liability increases; that means, that means you have received goods from somebody else; that means, you have received money from somebody

else and decrease means you have paid him back. So, that is a negative cash flow; negative and positive cash flow has this implication here

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From invest for investment activities, investment means you invest money in capital assets. So, if your capital asset goes up; that means, some cash has been invested, so that is a negative cash flow. I you make fresh investment that is a negative cash flow if you sell some capital asset, then money comes in that is a positive cash flow do not confuse with the plus sign here. Any new asset that you procure is a negative cash flow, any new investment you make that is a negative cash flow and the and the reverse meaning that you sell some asset or you sell some investment is positive cash flow.

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Cash Flow from Financing Activities

- + Net borrowing.
- Net investment in equity or debt.
- Dividend paid.

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Similarly, financing activity suppose you borrow some money from bank your loan amount goes up; that means, there is a positive cash flow. Net investment in equity suppose you bring in some money you invest fresh amount of money. So, that is a positive cash flow this sign is misnomer.

On the other hand, suppose you pay some dividend that money goes away from the company that becomes a negative cash flow. Fresh equity investment is a positive cash flow whereas, this negative sign actually is refers to the date suppose you repay some date. So, some money or some cash is used to repay and that is why there is a negative cash flow when you repay some loan.

(Refer Slide Time: 37:25)

Cash Flow from Operating Activities	
A. Net profit	1,13,995
B. Plus Depreciation	1,150
C. Minus increase in current assets	20,000
D. Plus increase in current liabilities	12,000
E. Cash Flow from Operating Activities	1,07,145 = A + B - C + D
F. Cash flow from investment activities	
G. Purchase of new fixed assets	10,000
H. Cash flow from Financing activities	
I. Decrease in loan	2,000
J. Divident payment	50,000
K. Net Cash flow	45,145 = E - F - H
L. Add previous cash balance	500
M. Net cash balance as at the end of the	45,645 = K + L

And here is the all the interest together. So, cash flow from operating activities net profit, then plus depreciation, depreciation is a positive cash flow because it is a non-cash expense that you have allowed in the profit loss account whereas, this the no cash expenses has been incurred. So, you add them back.

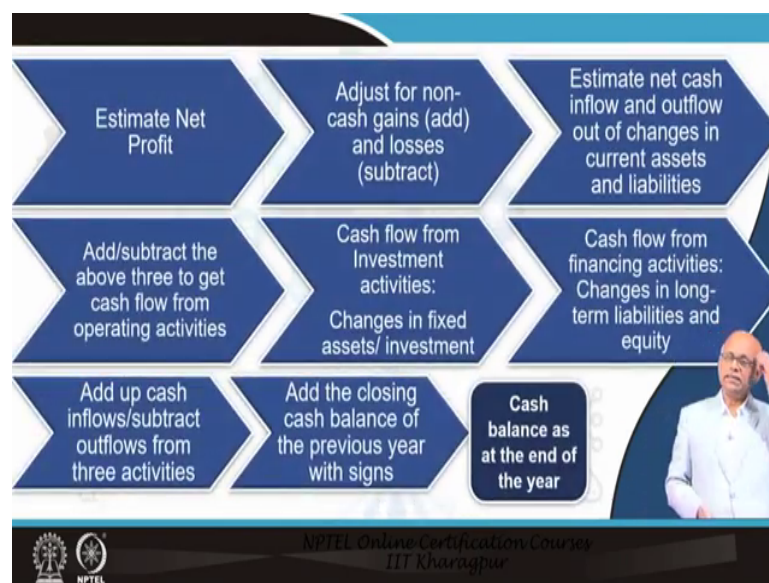
Minus increase in current asset; current asset has gone up; that means, it has consumed lot of cash. So, that is to be minus that has to be subtracted. Plus increase in current liabilities our current liabilities has gone up; that means, we have got more and more stroke on credit. So, we are doing business from somebody on somebody else's money that is why it is plus. Cash flow from operating activities is A plus B minus C plus D which is 1,07,000.

Cash flow from investment activities. So, we purchase a new billing machine for 10,000 rupees, so this is a negative cash flow this 10,000 is negative. Cash flow from financing

activities we have two financing activities; one is we have repaid the loan for 2,000 rupees is a negative cash flow, so 2,000 should be negative. Similarly, we have paid dividend gone out of the company, so 50,000 rupees is debit negative. So, net cash flow from in investment activity is negative 52,000, net cash flow from sorry net cash flow from investment is negative 10,000, net cash flow from financing is negative 52,000.

So, net cash flow out of all the activities is E minus F minus H because they are negative. So, total and then you add sorry total becomes 45,145. Now, look into the previous year's balance sheet and you will find that there was a cash of 500 rupees as at the close of business add them it becomes 45,645 and that is added to the balance sheet as cash balance.

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So, that is how the cash balance was this amount. So, this is the flow of information how you estimate the cash balance we start with net profit, you estimate the net profit then adjust for

non-cash expenses like depreciation they, then estimate the net cash flow cash inflow outflow from change of current assets and liabilities like accounts receivable and accounts payable.

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Add and subtract the above to get cash flow from operating activities. Then cash flow from investment activities, change in fixed assets and investment. Cash flow from financing activities is nothing, but changing long term liabilities and equity add them up you get the three net of the three activities.

Eventually you add them up with the previous year's balance to get the cash balance and that you add to the that you will take it to the balance sheet. There are very few references, but the book is wonderful Horngren majority of the MBA courses follow this book for accounting purposes, nothing about conclusions.

Thank you so much.