Decision making using financial accounting Prof. Arun Kumar G Department of Management Studies Indian Institute of Technology, Madras

> Lecture - 21 Cash Flow Statements - 2

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Imagine there is what is called as an inventory opening of 100 units, I am not talking about amount out here. Then there is a closing inventory of about 75 units, there is a material utilization of about 1500 units, how many units have you bought?

Student: It should be more than or equal to.

No you calculate, numbers are very clear here, 1500 is the units you have utilized right; that means, ideally you should have bought it.

# Student: Right.

100 units were already lying in stock; that means, how many you would have bought it? Only 1400, but at the end of that I, at the end of the what you call it as your manufacturing 75 units are still left; that means, how many units have you bought? 1475, apply the same principle there. Treat both independently that is why did not mix both when you even when you said creditors, I said no creditors is separate inventory, let us go step by step this part of it right. Now you might say this entire 100 1005. Now I will said now; that means, how much of material you have utilized? You have utilized about 1475 units of material out there.

Now, there is what is called as opening creditors about 150 and closing creditors about 250. 1475 is a material that you have basically purchased this particular year, am I with you; that is what we calculated as of now 1500 is what you have utilized 100 is there in the stock you have; that means, 1400 is what you should have ideally bought, but 75 is still there at the closing stock, ideally you should have bought 1475. Am I with you on that?

Student: Sir I need to.

Yes sir.

Student: So, the inventory opening is like a each product or it is about.

Now, in this case let us keep it as raw material or whatever, I let us keep it as a, let us not, we have not split that we can split it into three parts, finish goods inventory or four parts; inventory which is in transit raw material inventory work in progress 31st of March your car gets getting manufactured assembly line, there can be only half way right it could be. So, let us not get to that level of granularity as of now let us keep it as simple as possible. So, 1475 is the amount of material that I have bought actually.

Student: (Refer Time: 02:48).

Now I go to the next aspect, you have bought 1475 units of material, imagine I have last opening creditors I had to pay for 150 units of material last year. That means, what is the total eligible liability to pay this year; 1475 is what I have bought this year plus last years 150 I have to pay. That means, it will be 1575 plus 25 that is 1625 is the kind of for the number of units for which I have to pay. Am I with you on this? 250 I am yet to pay.

1625 minus your 250 that is all what I did right. Take simple numbers easier 100 200 1890 1960 will always be a problem. My dear you forgot or it was clarified I, both can happen.

Student : I still thinking.

You still thinking about what?

Student: Thinking about.

Sir I am going to re explain this do not worry. We are not moving ahead until you guys get this right.

Student: (Refer Time: 03:53).

We are not moving ahead until you are getting this right, if I move ahead then I am loosing the class let us keep it simple. Sir do not worry about INR rupees or dollars or whatever, worry about only units. I have utilized my production this year 100 1500 units. Am I with you?

Student: Sir which point at.

Which point, same thing its just instead of units you put INR, its all. See again further benefit taking one more minute, do not worry if its repetitive for you just relax for, mentally relax for a minute no problem. 1500 units is the material that I have utilized this year and I see the beginning of this year there I was 100 units of material which is lying in my godown. How many units of materials I should have ideally bought that means out of if I utilize 1500 1500 minus 100 I should have ideally bought 1400 units, I should have ideally bought out there am I right Abdul? Now, but at the end of the period I also see 75 units of material still lying in my godown.

That means, sir it could be from this 100 it need not be from this 100, let us not worry about all that. So, ideally then how much you should have bought? 1400 is what you have bought taking only this and this into account and you still see 75 lying in the godown; that means, ideally you should have bought 1475 units of material. Am I with you on this? So far clear.

Student: I did not get that part.

No problem 2017 sir first of Jan. I am going to make a clumsy again no problem. 31st of December 2017. This is Jan to December 2017. Now dates are clear how much have you utilized during the year Jan to December 2017?

### Student: 15000.

1500 units. Ideally you should have bought those units, but on first of January 2017 how many units were there in your godown?

Student: 100.

100; that means, how many units you would have bought? You should have ideally bought for.

Student: 1400.

1400 you should have bought, but the at the end of the on 31st of December you still see 75 units lying in your godown. Ideally how much you should have bought? see imagine I take this 100 units and I have utilized bought 1400 I will taken this 100 and then utilized 1500 out there, totally 5 sheets out here, this is your opening inventory, keep it with you. One sheet is your opening inventory, there are three sheets which you are basically utilizing for production right.

That is three sheets I have utilized for production out there; that is what I have basically see in this particular case; that is what you say in this particular case three sheets I have utilized for production or for example, this one sheet is your closing inventory let us k. Now even have use this three sheets for my production activity out there, these three sheets could include some sheet which was there as a opening inventory also. He gave me, out of these three he gave me two sheets which was opening inventory. Ideally how much I should have bought then?

Student: Only one sheet.

Only one sheet I should have bought, but I also see one sheet with him as a closing inventory then how many sheets I would have bought? Simple very simple sir that is all. Now till that point it is very clear 1475 is clear. Now let us come to this opening and closing creditors; 1st of January my creditors were 100 2017 1st of January. I am sorry I had to make it very clumsy I could not help it, now and for opening creditors was 150.

That means in this case how much have you bought. Are you clear Abdul? 1475 is what you have bought out there. Out of 1475 you have bought; that means, you have ideally

you have to pay for 1475; yes or no? How much was due at the beginning of this particular year? 150 so; that means, it is 1575. Am I, are you following?

Student: Yes sir.

So, you should have ideally paid 1475 plus this, but you are yet to pay another 250. So, how much have you ideally paid 1475 plus 150.

Student: Minus.

Minus your 250 is what you would have ideally paid out there. Am I with you on this sir? So far so clear.

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So, just take that and then move here in this particular case out here what we have calculated. I am sorry bored you for 5 minutes, but I need to take as many people as possible along. So, now, just extend that was in units this is an INR just do that x 100. So, you will know what is the cash outflow occurring, because of a cost of sale that is basically occurred out there. Am I with you on this? So, far so clear ok. Next my cash out flow also can occur because of an administrative activity 910. If there is a no cash out flow then it would be there in the, then it will be there in the?

Student: (Refer Time: 09:19).

If there is no, for example, administrative expenditure I have not paid, it is still due then where will it appear?

Student: Liability.

That is all very clear. So, if there is there anything due on administrative expenditure in the liability side?

Student: No.

Student: No.

Smitha anything? Nothing.

Student: No.

So, then naturally ideally what has happened you have basically paid it as cash. So, there is a cash out flow of 910 dollars out there, because of a operating activity. So, if you look at that I have sales which is a cash inflow, you arrived at something around 30150, my COGS are my purchases my cash outflow is because of 26690. Then another cash outflow that has happened because of a admin activity is another 910 out there. Am I with you? Is there any other item pertaining to operations out here?

Students: Payment received.

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Now that is the beautiful aspect out here. Now tell me that is a sales. One second sir I will just write that for 30000. Sorry 150 net and what you call it as COGS is negative 26690 admin negative 910, is there any item, any other aspect pertaining to operations out there?

Student: We could have.

Student: Depreciation.

Depreciation somebody said, who said depreciation sir.

Student: I said.

Anshuman.

Student: I know its not the cash out flow.

Student: But cash flow.

So, what are we calculating?

Student: Capital expenditure.

What are we calculating?

Student: Cash outflow.

Student: Cash flow.

Cash outflow sir do not worry about illusions, illusions is over from the last class yesterday illusions are over, P and L is over, today we are talking about hard currency. When we talking about hard currency depreciation, no cash outflow, no effect on the your cash at all. You would have said sir I bought the machinery for 3 years back, 3 years back it would had an effect not today. Am I with you on this?

Student: Yes.

So, no effect on that then any other aspect.

Student: Insurance.

Student: Insurance.

Insurance proceeds that is received.

Student: Interest expense.

Interest expend is what, when you pay interest.

Student: Finance.

Student: Finance.

Student: His not talking that.

We are talking only operations.

Student: True.

Student: Are you getting only outflow?

We are doing. No I was inflow also right, cash sales is a inflow know.

Student: Sir.

Inflow and outflow both.

Student: Exactly.

We are doing one sec; one sec; one sec; one sec, we are doing only for operations, the other two aspects I will come to it before 10:40 today definitely.

Student: That is.

Now two aspects out there, what he said is true doctor; one is insurance out there. In this particular case you see that you have received a money of about 140 dollars on insurance. Normally until unless otherwise specified, I am receiving in insurance for an investment loss that occurred, unless until that is specified. Insurance receipt is normally more treated with regard to your what it claim with regard your loss on your operations out there. Same way similarly taxes, you would say taxes what happens, I would say I

pay taxes on dividends also on the received, I pay taxes on my investment interest what I earn also, perfectly fine.

But predominantly taxes are what, taxes for your money generated from your core activity in the business, core activity is the operations out there. So, let us look at, let us keep into taxes little aside, we will come to taxes in a minute I will say insurance proceeds 140 dollars out there. Treating it as operation unless until otherwise clearly specified sir, if it is specified do not worry about it. Now coming to taxes. What is that what will P and L statements say? P and L statement will tell you what is the tax paid or what is the tax due, what is the; what is the tax for the year?

Student: (Refer Time: 13:35).

What is the tax for the year?

Student: Income tax you have to.

It will it give you what is the tax paid, will it give you what is the tax due or will it due, will it give you what is the tax for the particular year?

Student: For the particular year.

For the particular year that is all. What is the tax for the particular year 300 dollars?

Student: 300 dollars.

300 dollars; now is it a cash outflow? Madam is that a cash outflow?

Student: Yes.

Yes sure?

Student: Yes.

Student: We have to take the.

How much is the cash outflow?

Student: (Refer Time: 14:02).

Go back to your balance sheet, lookup on the liabilities is there any was there anything due last year was there anything is there anything due this year. For example, 300 might be taxes for the year you might not have paid anything, there is no cash outflow in that case. In this particular case if you look at you see that tax.

Student: No here its give that 1000 rupees is payable the last year

Student: That is a outflow right

Payable last year right wait, let us calculate what is the total outflow, what is the total eligible liable to pay?

Student: 1400.

1000.

Student: 400.

Plus what is due last year?

Student: (Refer Time: 14:34).

Student: 1000 is last year 400 is this year.

This year 400, stop it there. Now; that means, last year there are still a due tax payable of 1000 which is there, this years tax which appears in the P and L is only tax pertaining to this particular year, it will not talk about last previous years, this year it is 400. So, what is the total tax you are ought to pay as of this year current. I mean cash out flow that ought to occur, it will be about 1400 is the cash outflow that ought to occur.

Student: Sir 1300.

Student: No.

Wait, ought to occur.

Student: Sir 1500 is the current year.

Student: 1500 is the cash paid payable is 400.

I am sorry 300 is the current year. I am sorry look at the P and L, P and L what is the tax for the current year tax for the current year is 300 dollars.

Student: 300 dollars.

What was the due last year 1000. So, what is the total cash outflow that need to occur. The cash outflow that need to occur; need to occur, are you are liable to pay let me look at that you are liable to pay is 1300, but you also see in the balance sheet in the current year 400 out of that is still due; that means, how much you would ideally paid?

Student: 900.

1300 minus 400 that is about 900 is what you would have ideally paid out there, but there is one small catch out there. You see that go to the additional information out here; point number 1 2 3 4, 4th aspect out here, the tax deducted at source on dividends received included expense of, I mean include included the expense of 300 for the year amounted to rupees 40. Out of that 300 for the year what you have written as tax 40 rupees pertains to dividend, dividend tax is not part of your operating activity. So, how much is part of your operating activity? 900 minus that 40 860 should be the part of your operating activity. There is a cash out flow of 40 which is occurred, but that is because of a?

Student: Dividend.

Student: Dividend.

What a dividend which is basically what is called as a dividend you have received, dividend you have received is basically investing activity out there. So, let us not worry. So, ideal tax outflow he should be basically what you call it as 860 minus. I repeat sir I repeat out here what is the tax for the year?

Student: 300.

300. Go back and read point number 4, additional information. It says you have received dividend, on that dividend what you have received a tax of 40 dollars was deducted already and then that tax which was deducted also pertains to you, because instead of you paying he has paying TDS what you typically call it as; that is also included in this

300. That means, how much is the tax from operations for this particular year? Only 260, agreed, fine. You had to pay last year 1000 dollars. So, what is the tax liability as of this year?

Student: 1200.

1000 plus 260, 1260 is the total tax liability as of this particular year. You are yet to pay 400 at the end of the year, so what is the tax you have paid 860 that is why I have taken care out here. I did anything else on operations, any other aspect of operations; that is all right.

Student: Yes sir.

Student: Sir tax as per income is 300.

1 second sir; 1 second sir.

Student: 18.

1830 right. Taxes 1260.

Student: Minus.

Minus 400 is the amount you would have paid, if you do that that is nothing, but 860, this is what is a cash flow that is there from your operating activity. From core operating activity this is the kind of cash that is being generated. This is the kind of cash that is being generated that is what I have said cash flow C F is cash flow from operations; that is the kind of money that is coming in from operations.

Student: (Refer Time: 18:43).

What is important in braces is basically that is only for accumulated depreciation and as well as your cost of sale. Normally negative figure, negative means anything money going out is always in braces; that is instead of putting minus I we put it in braces out there. Am I with you on this so far; yes doctor. So, far so clear sir operation. Now what have we done, there are basically what we have tried do is, we have taken the P and L, we have taken the balance sheet, we have tried to see what is the cash that is coming in from the operation, what is the cash that is getting out of the operations out there, that is all what we have done so far operating activity alone, with you on this clear.

Student: Yes.

Now I move to the next aspect. Now let us get to what is called as, next what is it investing or financing?

Student: Investing.

Investing, next let us get to your investing activity. Now let us get to your investing activity what has happened to first investing activity. Investing activity is what?

Student: Previous one.

Student: Insurance 140 ok.

Student: So, that is insurance we claim or.

Insurance you have received not claim, you have received ; that is what it says extraordinary item. It says it reads as extraordinary item insurance proceeds from disaster management proceeds.

Student: Proceeds.

Proceeds means it has come, it has come in money has come in.

Student: Ok.

Receipt out there.

Student: Fine.

Insurance when a fire accident is extraordinary you know and when you receive money on that is extraordinary that is all, its a very very simple on that. See it is an activity which is not ordinary is extraordinary, its basically what happens any of these onetime activity which basically occurs, not a regular activity.

Student: (Refer Time: 20:25).

That is all unexpected onetime activity normally extraordinary item out there. Suddenly you have a lot of land, you decide to sell all your piece of parcel of land out there and you make a profit; extraordinary right, its not a day to day activity out there. With you on this?

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C7 INVESTING IN Income (Int) 200 DIV Income +200 Tax DIV -40 Rich of Mach -350 Sale of Tlach +20

Now, I move to cash flow from what is called as investing activity, where is investing this one or this one?

Student: The right page is this one.

No that is evaporations, just look at it and tell me, its my own writing that I can make out. Now I as look at the aspects out there, give me the problem set that is fine for me. Let us look at it from the P and L activity investment income there is a income, which you have received from your investments out there. There is an income which you have received from investments out there, which one leave it there.

Now when you have received an income from investment that is; obviously, a cash inflow, because of an investing activity accepted. Now is there any pertaining aspect in the balance sheet, investment income which is due last year, due current year, let us look at the balance sheet and then see it should always be an asset out there, there is a what you call it as interest receivable, there is what is called as interest receivable. Last year it

was 0, this year is 100. That means, this year interest income that has accrued for me is, investment income that accrued for me is how much? 300 dollars.

Student: 300 dollars.

How much how much have you received this year?

Student: 200.

Only 200, because 100 is still due this particular year, straight on a investment or investment income done.

Student: Marketable is.

We will come to market, hold it sir marketable securities hold it. Marketable securities and cash alone hold it 10:35 definitely. Then next aspect you receive income and the investments, there is something called as dividend income interest income you are receiving if it is debt what is investment in some kind of a what you call interest bearing security, dividend income if you are receiving you are because you are invested in some equities out there.

There is a dividend income also which is to the extent of to the tune of about 200 dollars in the P and L and there is nothing due, last year nothing due this year, there is no item mentioned in the balance sheet itself as far as dividend income is concerned. Am I with you on this?

Student: Yes sir.

That means ideally you should have received that money dividend income. So far so good.

Student: The item number here is written as.

No we will come to that 1 second sir; 1 second, but have we received this entire 200. Go back to item number 4.

Student: 40 dollars.

Student: 40 dollars previous.

40 dollars is a paid as TDS; that is basically on the investment that I you have basically made out there, that is what is called as tax on dividend minus 40 dollars.

Student: Investment.

Investment.

Student: First line 300.

Why 300?

Student: One question is there.

Why 300? Now look at your what other investment activity is there, you just take a look at it what are the investment activity is there. I think P and L we have almost covered everything, barring interest expenditure, what other investment activity is there.

Student: 392.4.

Student: 2500.

2500 what?

Student: Investment.

Student: Investment and all other things.

Which one sir, where is sir, where is it sir.

Student: Balance sheet.

Student: Balance sheet.

Balance sheet what is there sir?

Student: Investment.

Investments. Now what was the investment last year?

Student: 2500.

What is investment this year?

Student: 2500.

Is there cash inflow or outflow?

### Student: Outflow.

Then why are you worried. Supposing that had increased.

# Student: Then.

Then whatever is the amount of increase; obviously, will give a cash inflow. Supposing that I had reduced and you have received the proceeds whatever that has reduced will be your cash inflow. In this case it has not changed. Swapnika's question is, it could be that you have sold something and bought something. Fine you can add minus 200, you have sold minus 2500, you have sold all the investment you have bought for all the new. Investment plus 2500 add it no problem.

# Student: Thank you.

Now, when we say investment, investment need not be only the second aspect of the balance sheet, assets side of the balance sheet; balance sheet, if you look at the flow fixed assets, investments, current assets then miscellaneous expenditures and losses is not only the second aspect, wherever you are investing money you might have invested money in buying a machinery, you might have invested money in buying a car out there that is also what is called as investments. Anywhere you have invested money, anywhere you have put in money out there is all what we call it as investments out there.

Let us look at the fixed assets in this particular case. If you look at the fixed assets out there, last year was 1910 I, do not look at the depreciated value, look at the gross value, look at the gross value, do not look at the depreciated value look at the gross value depreciation keep it aside. In this particular case let us look at fixed costs fixed asset gross value. Gross value indicates what? The value at which this asset has been procured, gross value was 1910 net value I mean gross value current year is 2180. Last year was 1910 this year was 2180. Ideally what should have happened you have purchased some more fixed asset. What is the value of the asset that you would have ideally purchased; 90 2180 minus 1910 that will be?

Student: 270.

270 dollars is the kind of asset that you would have purchased, do not write 270 as of now, hold it for a minute, just go out to point number 1 2 3 4 5, 5 and 6. During the year the enterprise acquired property and plan to the extent of 350 dollars, cash was paid out there. When you have acquired plant and machinery for 350 dollars cash was outflow is 350 dollars. Read the next aspect plant and machinery costing 80 dollars was sold for 20 dollars that apart. So, the gross value we are worried only about 80 dollars, we are not worried about 20 dollars.

How did it increase only by 270 dollars? Because you have bought a machinery for 350, so ideally it is 1910 plus 350 minus 80 dollars value gross value that is the value you have sold. So, 350 minus your 80 dollars is your 270 dollars; that is what you basically see out there. Am I with you or not. So, basically what is a cash outflow because of a purchase of machinery, cash outflow because of purchase of machinery is 350 dollars, we read that point, am I with you on this? You have paid cash, then what does it say, it also says that you have sold some machinery which was at 80 dollars for 20 dollars.

So, that selling the 80 dollars machinery at 20 dollar is a loss, profit, do not worry about loss profit here, what is the cash inflow that has occurred, what is the cash inflow that has occurred?

Student: 20 dollars.

Student: 20 dollars.

20 dollars; that is sale of a machinery, am I with you; that is all.