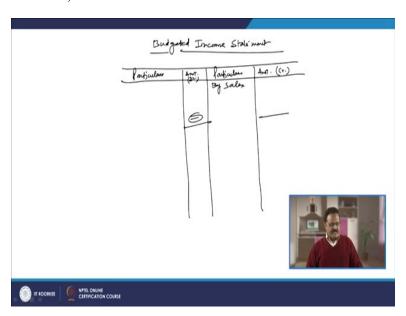
Management Accounting Professor Anil K. Sharma Department of Management Studies Indian Institute of Technology Roorkee Lecture 19: Cash Budget- 4

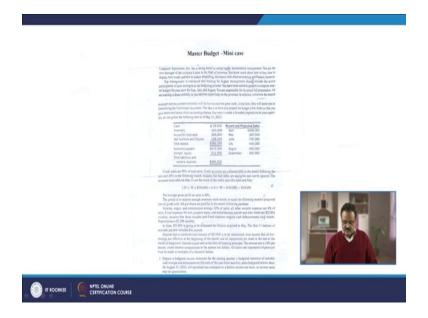
Welcome students. So, in the previous class we were talking about the budgeted income statement and in this class now, we will learn how to prepare the budgeted income statement or the budget profit and loss account, first we will calculate the gross profit and then we will calculate the net profit, right. So, now, how to prepare it? As I told you in the last class, in this case, see when you prepare it, we take only 5 items.

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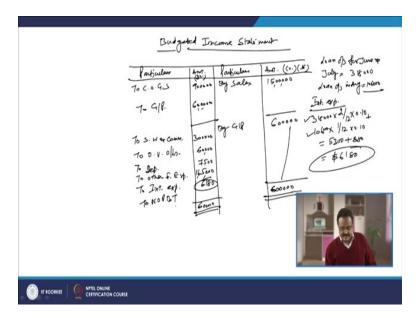
First is we take here the sales, we will look at the sales value so, we write here by, by sales, so how much is a total sales value for the three quarters.

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If you go back to the case information if you sum it up, in the month of June what are the total says 7,00,000 dollars, July 4 and August is of 4,00,000 dollars. So, total works out as 15,00,000 dollars, 1.5 million dollars of the sales are done in this total quarter. Now, this statement will not be prepared month wise, this will be the summary of the total schedule we prepared month wise so, we will take now as it gist of, as a summary of the total net result for the 3 months.

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So, what are the sales? Here it is 15,00,000 dollars it is in the amount is dollars so, you can call it as 15,00,000, this is the total amount or you can call it is 1.5 million dollars of the sales we are doing, nothing is the closing stock we are going to manufacture and sell worth rupees 15,00,000 dollars, so no closing sock is there are I am not going to put any closing stock here.

Now, with the regard to this information to come on the debit side, I told you that we have to take three accounts means three items, direct materials, direct labor, direct overheads, but if you look at the case here, you are given one information here is that is the average gross profit is 40 percent, average gross profit is the 40 percent, it means gross profit is 40 percent so, it means some of the three things that is a material then is the labour and other overheads is 60 percent.

So, we have to take it as in total we are not given separate information with regard to material, labour and other overheads, we have to take it as a total. So for calculating it as a total amount, What we have to do here is, we have to write something and that what you to write his something is when you write in total, sum total of the three things, you write here it as To COGS, COGS means cost of the goods to be sold, sum total of

material, labour and the other overheads. So, we are given that is 60 percent of the total value of the sales because gross profit is 40 percent

So, what is the 60 percent is, that works out here as dollar 9,00,000 right. So it is 9,00,000 so, what is the gross profit here, To gross profit which is given to us gross profit is 6,00,000 clear, we are given that is 60 percent so, gross profit sorry 40 percent so 40 percent of, 40 percent of 15,00,000 is 6,00,000, 60 percent of 15,00,000 is, 60 percent of 15,00,000 is 9,00,000. So, we are having the gross profit of 6,00,000 against the total sales of 15,00,000. So, this is the gross profit, first part of the net profit.

So, we directly do not arrive at the net operating profit we arrived in two steps, first is gross profit and then we have to find out the net profit. So, you know take it as the because this is a positive balance so, this will come this side By gross profit, GP and this is how much 6,00,000 if there is any other income available apart from the gross profit, you will add it up here on this side, but in this case nothing else is there. So, it means the maximum means the income or the say inflow or the revenue available is only the gross profit and that is directly from the sales.

So, there is now no other source of indirect income so, we are not putting anything else on the credit side of the lower part of the income statement. So now come up to the debit side, debit side we have to take now the these expenses material, labor and other overheads are called as a direct expenses and some other expenses are also there which need to be subtracted from the gross profit, they are known as the indirect expenses, means direct expenses of those expenses without which the production you cannot think of production is not possible.

But apart from the production expenses, you have to incur some other expenses also which are called as supportive expenses. And those expenses have to be taken in the lower part, though without these expenses production will be possible, but taking the production from the place of production to the purchase of the sale, as a place of production to the place of sales will not be possible for that what we have to do is, we will have to, see this provide for some other expenses, that is why they are called as indirect expenses.

So, from the gross profit you have to subtract the indirect expenses also and finally, whatever is left with us is that is a surplus of the gross profit against the indirect expenses is called as the net operating profit. So, now from the schedules again refer back to the schedule and you find out what are those indirect expenses, first head of those expenses was To salaries, wages and commission, that was the one head and you take it as for the three months, you could take it at means total for the 3 months how much it works out as.

This is 3,00,000, total it up for the, total 3 months that works out as 3,00,000, then the other variable overheads, To other variable overheads, how much they are total it up for the three and this works out as 60,000 this amount works out as 60,000 other variable overheads or other variable expenses. This is 60,000, one more thing was given to us in the case is that is the say depreciation amount and here somewhere it is written in the case if you read it carefully.

Yes, assume that these variable and fixed expenses require cash disbursements each month, depreciation is 2,500 dollar monthly, it means how much is the depreciation total for the quarter, that is to depreciation then this amount is how much, this is 25 multiple 3 that is dollar 7500 is the depreciation amount right.

So, we have taken salary, wages and commission expenses, we have taken other variable overheads or expenses, we have taken depreciation 7500 and now we have to take the other fixed expenses, to other fixed expenses. If you take the other fixed expenses, then what are these other fixed expenses, how much they were 55,000 dollars per month. So, for the three months, the quarter as a whole they work out as 1,65,000 dollars.

These are the other fixed expenses that is 55,000 per month multiple 3 1,65,000 out of means other than these four expenses, salary, wages and commission, other variable expenses, depreciation and other fixed expenses, what is left with us is, one more expenses left and that is the, to interest expense, To interest expense and that interest expense is how much? Now, I will say here it is 6180; I would call it as 6180.

Now, you will find out why and how this 6180 has been calculated, how this 6180 has been calculated. So, now we have two figures, one figure is the figure of the interest

which we have paid, how much interest we have paid actually, one interest we have paid here is that is 3530 in the month of June. And one interest actually we have paid is 1530 in the month of sorry, 3530 in the month of July.

And the second interest we have paid is 1530 in the month of August, but that is actual interest paid. This statement is prepared on the accrual basis, that on the total loan of 318,000 how much interest is due for the total period for which the funds are used, we have to find out that amount here. And that works out here is as 6180 and then how much is paid, actually paid, we will have to find out the difference, how much was due, how much is paid, and the balance will be shown as interest outstanding in the balance sheet.

I am saying here in this statement, that is independent of how much we have already paid and shown in the cash flow statement or in the cash budget that has nothing to do here, first we will calculate is, the interest due and the total borrowing of 318,000, how we calculated this is, I will show here the calculation of this and for showing the calculation, that is how much loan was outstanding, loan outstanding, for example, I will write here, loan outstanding for June and July.

How much was this amount, this was 318,000 we borrowed. We use this money for the month of June, for the month of July, and part of the amount was paid in the month of July at the end of the July. So, how much was paid at the end of July 212,000. So, what is the balance left? So, it means now the loan outstanding in August, how much was, that amount was 1,06,000 dollars that was outstanding amount.

So, it means if you calculate this amount total interest you have to calculate here is for 318,000 for a period of two months at the rate of 10 percent and on the balance of 106,000 for a period of how many months, for 1 month only and the rate of 10 percent so, we have calculated this interest expense you will call it as interest expense is, this way we have calculated is that is 318,000 multiple 2/12, two months we have used this money into 0.10 that is 10 percent plus we have to take here.

Now the another amount, how much is this, balance amount of 1,06,000 again for how much month, one month only that we are keeping this amount for one month that is

because two months we are paid on the whole amount and 1,06,000 we are paying only for one month that is due only for the month of August only and this amount is only the balance left is 1,06,000 and for a period of one month at the rate of how much, again that is that the rate of 10 percent.

So, if you calculate this, this total amount works out as how much this will be equal to 5,300 dollars for this part, right and plus, we will have to find out that is 880 for the second part. So this total amount works out as how much 6180, which is the interest due and that I have taken here that is the amount is that interest do is 6180 which is independent of the interest actually paid which we have shown in the cash budget.

We will adjust this finally, how much was due, this much was due, how much is paid, that much is paid, how much is the balance will be outstanding that we will show in the balance sheet. So this amount comes up here as now this, now you total it up, if you total it up putting a diagonal line here, what is your total gross profit or the closing balance of this statement is 6,00,000 right, close it by two lines, again it is 6,00,000 both the sides have to equal to 6,00,000.

So the difference is to net operating profit before tax, net operating profit before tax if you calculate this balance it means 3,00,000, 3,60,000, 3,67,500 plus 1,65,000 and 6180, if you sum it up these total figures subtracted from the 6,00,000, so, how much you are left with is with here is that the net operating profit before tax is 61320. This amount is 61320 is the net operating profit before tax. This is the total amount of the profit we have worked out and this is the net result of the operating budget, the budgeted net operating profit before taxes 61,320, this is the end of the operating budget.

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Now we will go to the next statement and we will try to find out the or prepared something which is called as the budgeted balance sheet, last statement we are going to prepare here is that is the budgeted balance sheet and with that, we will be able to come to the end of the complete master budgeting process in this case or for this case. So now I'm preparing the budgeted balance sheet, budgeted balance sheet. This balance sheet can also be prepared in T format; it can be prepared in the T format or it in the vertical format. I am preparing again for the simplicity and better understanding in that T format.

So, we are taking here this way this is a T format right. So here but we have to write his that is the say budgeted balance sheet of this company for the quarter, that is for the for the for the quarter, that is beginning from the month of June to the ending month of August. So this is for the quarter of June to August so, the budgeted balance sheet at the end of the quarter as at the end of August, budgeted balance sheet as at the end of August. So now you take the two columns, this side is called as liabilities and capital and this is amount, this side is called as assets and this is amount right.

So, now we will start with the putting up the means first we start with the liabilities and capital. So here we take it as the first of all owner's equity, owner's equity if static, it is owner's equity, owners equity you are given in the balance sheet what is owner's equity given in the balance sheet you look at the owner's equity given in the balance sheet is how much 5,11,000. So, this is owner's equity put it in the inner column, don't take it to the outer column 5,11,000.

In this now you have to add something which is called as add net operating profit, this is net operating profit before tax and how much is the net operating profit before tax, we have calculated here is that amount is 61,320, we have to add it back up in the capital so 61,320 this amount works out as how much, this amount works out as 5,72,320 because profit when it is not distributed as dividend to the shareholders it is added back in the capital, so your capital becomes now 5,72,320 is your capital now because of the profitability capital is appreciated.

Now, after this capital you have to take now the other liabilities, so other liabilities are what? One is the accounts payable, accounts payable, accounts payable will come from where? That is accounts payable will come from the purchase budget, how much we are purchased, how much we are to pay for the purchases and how much is left to be paid yet. So, for example, our condition was that whatever we are purchasing, we are purchasing equal to the next month sales and the cost was 60 percent.

So, the next month is September we have purchase in the month of August, which will be paid not in August, but in September. So it means 3,00,000 purchases that is 60 percent of that is 1,80,000 which we purchased in the month of August, but we have not paid for

that it means this is the accounts payable and this amount is how much 1,80,000 right, others are loan payable how much loan is left now?

We are borrowed 3,18,000 how much we have returned till now, 2,12,000 plus 61,000. So, the balance of the loan, loan payable is that is 45,000 is the balance of the loans. Now we will calculate the interest payable, how much interest is payable? Interest payable is 1120, 1120 how much we are paid total interest was due interest was how much 6180, how much we have paid, we have paid one figure is 3530 and second figure is 1530.

So, this much we have paid, these two things we are paid this much was due. So, the balances how much that is 1120 is the balance which is still due we have put it here that is 1120 is the interest payable, now you come to this site and if you come to this side, you will find out here is the now the assets because this side no other liabilities is left, now all the liabilities we have taken into account. So we are not left with anything so write the assets here, you are given the fixed assets first of all you have to take the fixed assets.

If you take the fixed assets go back to the case, how much fixed assets are given to us, we are given the fixed assets here somewhere, total assets, accounts receivable, furniture and fixtures is 1,68,000. So, if you talk about the total assets, you can call net furniture and fixtures, that is 1,68,000 are given to us. So, fixed assets are 1,68,000 put it here, inner column less depreciation, less depreciation, how much is the depreciation 7500.

So, how much is the balance of assets left, we are left with 1,60,500 right, this is the amount of assets, fixed assets we are left with after depreciation, now after the fixed assets will come to the current assets. First current asset is the inventory, those purchases we made in the month of August for meeting the requirement of the month of September that is purchased but not used in the month of August. So, that is still inventory and that inventory is how much worth rupees 180,000 this is inventory with us.

Then we have the accounts receivables, AR's, accounts receivables as we have the accounts payable here 1,80,000 similarly, we have the accounts receivables also because all the sales are not collected in the same quarter, some of the sales are left uncollected which will be collected over the next month and that amount of the sales which is made

in the current quarter but not collected is called as, what we call it as, they are called as the accounts receivables because of the sales receivables.

So, that amount works out as how much 432,000, 432,000 these are the accounts receivables, now how we have calculated this figure. Let us now understand this, accounts receivable 4,32,000, how we have calculated this accounts receivable, I will discuss with you here that, for example, July sales, from July says how much is accounts receivable left with us, you will call it as 20 percent of 90 percent of July sales right.

So, 20 percent of 90 percent of the July sales is, say you call it as that amount will work out as how much 72,000, 20 percent of 90 percent of the so, how much sales we are going to make in the month of July for example, if you look at the case, the sales in the month of July are 400,000 and collection condition is what, collection condition is 10 percent sales will be collected in the month of say that we have already collected 10 percent of 400,000. 40,000 we have already collected in the month of July. So, now we are left with the 90 percent of that 400,000 to be collected.

So, out of this 80 percent of this will be collected in the next month and then remaining amount will be collected in the say next to next month. So, in this case, for example, in the month of July, if you talk about say how much is left to be collected, that is only 20 percent of the, say we again look at the condition, cash sales are 10 percent so, it means what are the credit sales in the month of July, credit sales in the month of July are 4,00,000.

Out of this the condition given to is his credit accounts are collected 80 percent in the following month of sales and 20 percent in the say you call it as the in the following month. So, how much is now left to be collected in the month of July, that is 20 percent of the 90 percent of what amount, that is 400,000, this amount is 400,000 and that amount works out as 72,000 dollars and in the August sales from the August sales, what are the August sales, again they are of the dollars how much 400,000.

So, how much is left to be collected? The amount to be collected is you can call it as the 100 percent of 90 percent of this amount 400,000. So, this works out as how much,

360,000. So, this total amount becomes 432,000, this amount we have shown here, this is the accounts receivable, part of the July sales are a collectable and part of the means this is accounts receivable in the month of July what is the accounts receivable left is 20 percent is the accounts receivable which is still not collected.

So, distribution is in the month of July, we are selling for 4,00,000, 10 percent is collected in the month of July because that is cash sales, now you re left the 90 percent of the 4,00,000 and out of that 90 percent of 4,00,000 80 percent is to be collected in the month of August. So, that has already come in the sales collection. So, how much is still collectable 20 percent by the end of, till the end of this quarter 20 percent is still collectable that works out as that 20 percent of the 360,000 which is 90 percent of the 400,000.

This is 72000 out of the August sales 10 percent are collected as cash sales and the remaining amount means 80 percent will come in the month of September of that 90 percent and remaining 20 percent of that 90 percent will come in October. So, all 100 percent of the credit sales of 90 percent that is 360,000 is left to be collected. So, this amount works out as 432,000 and finally, the last current asset is cash, how much is the cash balance, go back to the cash budget in the cash budget is given to you is how much of that is 25,940 that is a closing cash balance.

So, if you sum up these two sides, you will find your balance sheet is balanced, this balance sheet is how much 798,440 and this is 798,440 if you total it up you will work in 00, then it is 4 then it is 9 and 8 it is 4 again. So, total amount if you calculate is that will work out as 798,440. So, this is now the final balance sheet which we have prepared and this is the quarterly balance sheet. This is the as at the end of August, because August is the last month of the quarter. So, this is a quarterly balance sheet which is available with us.

So, if you look at this entire process, if you backtrack now, what we have means where we started from while preparing this budget and where we have ended up is, we have ended up with the 2 statements, one is the budgeted income statement and another is the budget of the balance sheet. I already told you that the master budget has two broad

components, one is the operating budget second is the financial budget, operating we start with that sales forecasting or forecasted sales.

And then we prepared the different schedules on account of income from sales and expenses for generating those sales means production expenses. And then we take them finally to the last statement, which is called as a quarterly statement and that statement is called as the budgeted profit and loss account or the budgeted income statement right. We prepare this budgeted income statement and we found out that the net result of this quarter was for this company; for this store is that they are ending up with the net surplus, net operating profit before tax for this quarter is with the 61,320,000.

This is end of the operating budget, then we prepared simultaneously the other two statements in the financial budget as I told you in the theoretical discussion, that first component first statement we prepare is the cash budget, we prepared the cash budget for three months independently, we started with opening budget of balance of the cash every month, we ended up with a closing balance of the cash. So for the three months, we found out the opening balance of the cash, closing balance of the cash.

And at the end of the quarter means at the end of that last month of the quarter, that is August, the closing cash balance was how much, that was 25,940, 25,000 is the closing cash balance, which we always keep as a safety stock and that 940 was left with us as the surplus unused partly in the month of July, partly in the month of August and then closing cash balance of this quarter at the end of the August was 25,940. So that total means all those figures were brought down to the balance sheet.

So revenue and expenses they were accounted for in the budgeted income statement, and assets and liabilities were accounted for in the budgeted balance sheet. Finally, when we prepare the balance sheet, we put on the one side, the capital and liabilities or the liabilities and capital. On the other side we put the assets and when we found out that say on account of the liabilities and assets, finally, we could find out that your balance sheet is the budgeted balance sheet; quarterly balance sheet is the balanced balance sheet.

We are able to find out that some part is owner equity and say sum total of the equity plus profit and some are the other current liabilities which will be becoming due to be paid in the time to come against that we have the assets, which include fixed assets, on account of furniture and fixtures, we have current assets like inventory, accounts receivable and cash and finally we found out that the closing cash balance is 798,440, and our balance sheet is balanced.

So now, for every quarter for every business, when this kind of the budget is ready, it remains communicated to the different sections, sub sections, units and sub units in the organization. Everybody knows in advance at what is expected from them in the coming quarter. When the budget is there, when the standards are fixed, everybody knows that benchmark is given to them. Now they have to perform according to this benchmark or this budget.

And if anything goes more than this ups and downs, then at the end of the quarter, we will compare the actual performance with the budgeted performance and then we will try to find out where are the variances, whether positive or negative variances both will be analyzed. So that in the next quarter, our performance comes up as budgeted, no variances take place or the minimum variances take place. And at the end of the year, we are able to take the organization to the level, the firm to the level where we want to take it

So budgeting is a very, very important management control tool, management decision making tool. And we are learning here. So preparing the budget, learning about the preparation of the budget is one thing, but how to use the budget for the management decision making is the other thing, right. So both of the things we have to keep in mind, and we have to finally learn about that budgeting or the budgetary exercise is a very, very important tool, very, very effective tool, which can facilitate any kind of management decision making.

So I am ending up stopping with this case. Next time I will discuss one more case of this type. And we will try to learn again that in a little different set of situation, how the

budget can be prepared, so that I will discuss with you one more case in the coming classes. Thank you very much