**Management Accounting**
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**Lecture 17**
**Cash Budgets – II**

Welcome students, so now we will learn to prepare the cash budget, how to prepare the cash budget what is the relevance of the cash budget and in the previous class I raise a question that, how I have calculated that interest of 6180. That is a very important question and that we will answer that how we have found out that interest because, that will depend upon the borrowing so that figure of the borrowing was, that is 6180 is the interest.

So, it means that will depend upon how much borrowing we did. And how much amount we use for how much amount of time and finally how the interest was calculated. So that missed question we have to answer and we have to learn in overall how to prepare the cash budget, right.

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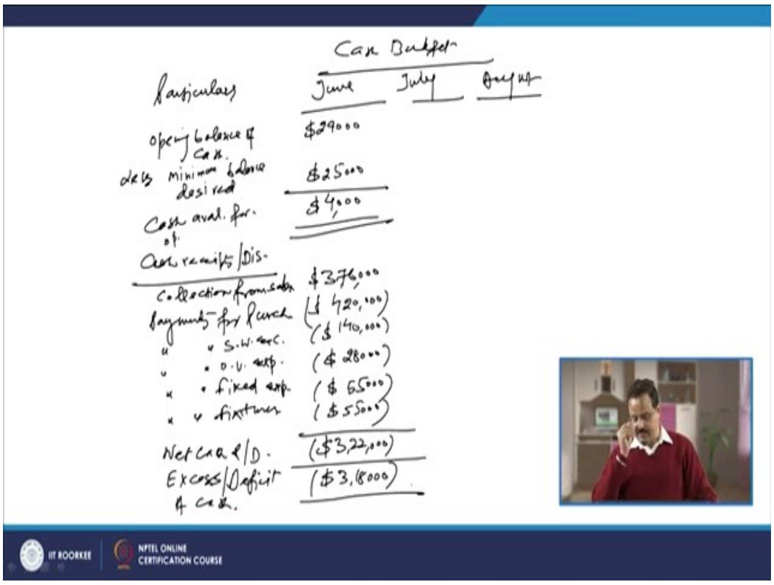

# Master Budget –Mini case

Computer Superstores, Inc., has a strong belief in using highly decentralized management. You are the new manager of the company's store in the Mall of America. You know much about how to buy, how to display, how to sell, and how to reduce shoplifting. You know little about accounting and finance, however.

Top management is convinced that training for higher management should include the active participation of store managers in the budgeting process. You have been asked to prepare a complete master budget for your store for June, July, and August. You are responsible for its actual full preparation. All accounting is done centrally, so you have no expert help on the premises. In addition, tomorrow the branch manager and the assistant controller will be here to examine your work; at that time, they will assist you in formulating the final budget document. The idea is to have you prepare the budget a few times so that you gain more confidence about accounting matters. You want to make a favorable impression on your superiors, so you gather the following data as of May 31, 20X5:

| | | | |
|---|---|---|---|
| Cash | $ 29,000 | **Recent and Projected Sales** | |
| Inventory | 420,000 | April | $300,000 |
| Accounts receivable | 369,000 | May | 350,000 |
| Net furniture and fixtures | 168,000 | June | 700,000 |
| Total assets | $986,000 | July | 400,000 |
| Accounts payable | $475,000 | August | 400,000 |
| Owners' equity | 511,000 | September | 300,000 |
| Total liabilities and owners' equities | $986,000 | | |

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Credit sales are 90% of total sales. Credit accounts are collected 80% in the month following the sale and 20% in the following month. Assume that bad debts are negligible and can be ignored. The accounts receivable on May 31 are the result of the credit sales for April and May:

$$(.20 \times .90 \times \$300{,}000) + (1.0 \times .90 \times \$350{,}000) = \$369{,}000.$$

The average gross profit on sales is 40%.

The policy is to acquire enough inventory each month to equal the following month's projected cost of goods sold. All purchases are paid for in the month following purchase.

Salaries, wages, and commissions average 20% of sales; all other variable expenses are 4% of sales. Fixed expenses for rent, property taxes, and miscellaneous payroll and other items are $55,000 monthly. Assume that these variable and fixed expenses require cash disbursements each month. Depreciation is $2,500 monthly.

In June, $55,000 is going to be disbursed for fixtures acquired in May. The May 31 balance of accounts payable includes this amount.

Assume that a minimum cash balance of $25,000 is to be maintained. Also assume that all borrowings are effective at the beginning of the month and all repayments are made at the end of the month of repayment. Interest is paid only at the time of repaying principal. The interest rate is 10% per

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1. Prepare a budgeted income statement for the coming quarter, a budgeted statement of monthly cash receipts and disbursements (for each of the next three months), and a budgeted balance sheet for August 31, 20X5. All operations are evaluated on a before-income-tax basis, so income taxes may be ignored here.
2. Explain why there is a need for a bank loan and what operating sources supply cash for repaying the bank loan.

So, we will prepare the cash budget now, it is a very interesting budget and it is a very long schedule. So, when you talk about the cash budget we will prepare at this cash budget and this schedule.

So, it is what we have to take here into account cash budget and again for three months, it is not in total, profit and loss account we prepared as total that is a quarterly profit and loss account. But, the cash budget has to be the monthly cash budget. Cash budget has to be monthly cash budget. That is why we will (means) be finding out that how much is what is the cash position in the month of June? What is the cash position in the month of July? What is the cash position in the month of August and finally (what is the) what is the closing balance of the cash in the month of August?

Which will finally go to the balance sheet, which will finally go to the balance sheet? Because the total cash position in the month of June that we will adjust in the month of July and in the month of July that we will adjust in the month of August. So, whatever the closing balance whether positive balance or negative balance. Positive means, if our inflow is more than the out flow so we have a positive balance.

Otherwise, if our outflow is more than the inflow ours is a negative balance. So, accordingly what is the closing balance of the month of August that will go in the balance sheet and that amount we have to show as a closing cash balance, quarterly closing cash balance that will be the part of the balance sheet, right.

So, now we are going to prepare this cash budget and we are starting with the again the same thing and we will have to take here as again the particulars and then we will take here the different months. So, I am taking here June, July and it is August, three months we are taking here again. This is the cash budget you call it as that is the monthly cash budget. So, we are going to prepare it for the three months and this is the June, July and August.

Now we start with what is the cash information given in the case cash related information given in the case is for example you are given this balance sheet closing balance sheet of this period some balance sheet is given to us this balance sheet is that, you want make a favorable impression on the supervisors so you gather the following data as on May 31 2005-15 whatever it is.

We are given this closing balance sheet on the one side you are given all the assets and liabilities on the other side you are given the sales. So this balance sheet which is given on the left hand side upper part includes assets and they have prepared in the order if liquidity, order of liquidity means when the current assets are on the top of the balance sheet and the fixed assets are at the bottom of the balance sheet, than it is in the order of liquidity otherwise the balance sheet where the fixed assets are on the top of the balance sheet and the liquid assets or current assets are in the bottom of the balance sheet that balance sheet is called is the balance sheet prepared in the order of permanence.

So this is the balance sheet which they have given they have given to us says that is in the order of liquidity and this is what that, they have given opening balance of cash this is a closing balance of the month of May closing balance of the cash in the month of May is 29,000 dollars than they have given us the other assets inventory is also given accounts receivable are also given then the furniture and fixture are also given total assets are given.

Similarly, we are given the current liabilities first accounts payable, honors equity and the total liabilities and the honors equity so both the sides are equal total amount works out as how much? 986,000 dollars as assets and 9,86,000 as liabilities. So we have got this information that the beginning balance or you can call it as closing balance of the month of May is or the previous quarter is now the opening balance in the month of June which is the first month of the current quarter so we will have to take it as the opening balance right.

But now there are certain conditions with regard to the cash very important condition given here is that, assume that minimum cash balance of 25,000 dollars is to be maintained all the times this is the minimum cash balance it means whatever the amount you want to use out of the available balance in the current month for making the payment you can use any amount over and above 25,000 over and above 25,000.

It means in the current month may be the closing balance for the month of May is 29,000 so you have not to touch up to twenty-five thousand cash will be cash at all the times in the bank account to the tune of 25,000 dollars it means for the month June for making the payments in the month of June how much cash is available with us that is only 4,000. 25,000 dollars you cannot touch it’s a minimum cash balance we have to always keep in the form of cash.

It means for making the payments in the month of June we will have with us only 400,000 dollars and next question is from where the remaining amount will come for making the payment of purchase and other operating expenses? That will come from the sales collection. That is why we have prepared the sales collection schedule.

So in this cash budget on the top you will put that how much is opening balance. How much is the required minimum balance and how much is available for the current operations? Plus, means that cash which is available for the current operations and plus how much is available for the current months collection of the sales? So some totally you have to find out, that this much cash is available with us and from that cash you have to make all the payments and then you have to find out the closing balance of the cash.

Now that can be positive that can be negative, for example if they're 4,000 which is available in the month of June plus sales collection which we make in the month of June if the total amount is more than the total payment we are going to make in the month of June so what will be the closing balance we will have a positive cash balance at the end of end of June and that will be the closing balance in the month of June which will become the opening balance of the month of July.

Similarly, we will go for the other sources means the collection of sales in the month of July will subtract for the month of July and then the closing cash balance we will calculate for the month of July similarly, then the month of August so at the end of every month while preparing the cash budget you will come to know our cash balance is positive or negative.

For example if it is positive no issue because they're closing balance of June will become the opening balance of July and we are in a very comfortable position but for example it becomes negative that in the month of June we have total say cash available from the previous month is 4,000 plus collection whatever that total figure comes out if your expenses outweigh the collections or the inflow payment on account of raw materials payment on account other variable and fix expenses outsmarts that total collection it means the net balance at end of June will be negative, if that that balance is negative what will you do?

From where the cash will come, that negative balance you have to make again at least you have to make payment for the of June otherwise the firm will be insolvent, bankrupt so that negative balance, we have to make good by borrowing the difference or that say negative balance from the bank.

We have to arrange cash because you cannot touch that 25,000, that minimum balance we have to maintained all the times it means the surplus or the extra cash which we have to pay on account of different payments for the month of June that we have to borrow from the bank and we have to make use of that.

Then whatever is the balance in the month of July it may be possible that in the month of July were collection are more than the payments so we have the positive balance so we can use that positive balance for making the payments for the borrowing which we have made in the month of June what condition here is that, the normally condition remains because here is a current account borrowings are the short term borrowings or the working capital borrowings so whenever we return this borrowing we return it with the interest.

So number one thing is first we have to prepare the cash budget for the month of June we will have to try to find out that, what is the net balance closing balance for the month of June if it is positive balance no issues, but if it is a negative balance then what we have to do is we will have to take that balance means as a negative balance you cannot take it to the next month.

So, it means you have to arrange the funds for that borrow the funds from the bank make all the payments and then whatever is the minimum balance we have kept out of 25,000 rupees will be the closing balance for the month of June and that will become the opening balance for the month of July.

But in that case means your operating cash available will be zero right, so let us see what happen, we will prepare the cash budget for the different months and we will see, what is the closing cash balance position for the different months? Now in this case we will have to start with the cash budget for the month of June and we are good to start with the first thing is always when you start preparing the cash budget you start with the opening balance and you end up with the closing balance of the cash.

So, opening balance is the closing balance of previous months how much is given in the balance sheet 29,000 right, so we will start with that so it is the opening balance, opening balance of cash the how much Is the? This amount is 29,000 dollars right less, minimum balance desired minimum balance desired is how much? 25,000 dollars.

So what you write here cash available for cash available for operations is how much? Only 4,000 dollars cash available for the operation is only 4,000 dollars. From the previous months closing balance which we can the opening balance for the current month you can use only for the current payments to the extent of 4,000 dollars, 25,000 will remains as cash.

Now let us see what is the collection position? Let us go back to now the sales collection schedule and what is the say, we will write here cash receipts/disbursements, cash receipt/disbursements so in this case first source of collection is how much collection from sales, collection from sales so you know that what is the collection from the sales we have already prepare the schedule and what was the amount for collection for from the sales for the month of (Jul) this June that amount is 3,76,000 dollars, 3,76,000 dollars.

This is going to be the only collection from the sales we have prepared this information already in the sales collection schedule and this is going to be 3,76,000 dollars right, now other there is no source so how much amount you have available for the all the payments if you talk about 376,000 dollars collection from the sales and 4,000 is available from the say after keeping minimum balance or the minimum desire balance of 25,000 dollars so 4,000 is available that the total amount available is 3,80,000 dollars.

This month you can use 300 and you can make the payment worth of 3,80,000 dollars which is available with us now we will have to find out from the schedules first schedule we have to prepared is the material schedule that is the purchasing schedule second schedule we have prepared is the purchase disbursement schedule and then the other operating expenses schedule.

So how much total payment we have to make how much collection we have how much total payments we have to make and then we will find out what is the closing balance? So, let us now I have written here cash receipts link of disbursements, now once the collection is over collection of the sales is over that is 3,76,000 dollars now we talk about the payments for purchases different payments and the first head is for payments for purchases, so how much is a payments for purchasing we are going to make here?

That is the first payment we have calculated is 4,20,000 dollars this is the negative, I am putting it in the bracket it is a negative balance, now you can get indication here that our total cash available is 3,80,000 dollars and first head of the payments is that is on account of materials itself is so big that now the balance seems to becoming negative at the end of the month our total balance will be negative.

So it means for payments for purchases is going to be 4,20,000 then the other payments we are going to make is that is the payment for salaries, wages and commission is going to be how much we have already calculated that payments that is the dollar 1,40,000 this is another amount we have to pay then payment for other variable expenses and this amount is how much this is going to be dollar 28,000 that is due. we have to make this payments of 28,000 in that schedule in the other operating expenses schedule we have taken it together as 168,000 but here we are going to show it separately and that is the 28,000 dollars this payments, we are going to make on account of salaries, wages and commission and other variable expenses and what other payments we are going to do? That is the fixed expenses.

Payments for fixed expenses, payment for fixed expenses how much? Payment that is every month we have to pay a sum of rupees 55,000 dollars which is a fixed cost so this is the 55,000 dollar is the fixed cost right, now let us see is there any head of expense yes there is another head of expense we will have to look at fix expense for rent property and taxes and miscellaneous payroll and other item are 55,000 dollars monthly which we have already taken, assume that this variable and fix expenses require cash disbursements each month.

Depreciation 2,500 monthly which is not a cash expense, so we have taken that statement in the profit and loss account because depreciation is non-cash expense so we take into profit and loss account straightway it's not the part of the cash budget now continue reading in June 55,000 worth of dollars is going to be disperse for fixtures acquired in the month of May, so it means this is another head of outflow.

There is another head of expense which we have to pay so now payment for how much payment for fixtures. Payment for fixtures how much we are going to pay for the (pay) for the fixtures is again dollar 55,000 dollar 55,000 this is the payment for fixtures. Now finally we have got all the inflow and outflow information, inflow is 4,000 available from the previous month 376,000 collection from the current month sales and outflow is on account of material on account of operating expenses on account of fixtures.

Now we see what is the, say if I will call it as the net cash received net cash received / disbursed what if now net cash received/ disbursed if you calculate this total amount this we will find out the net balance is negative and how much that balance is negative? 322,000. 322,000 what does it mean? That our payments are more by this amount of 322,000 as compare to our collections. It means now there is a negative balance of 322,000.

But I am taking this 322,000 is only 376,000 as collection and minus all expenses so it means all payments it means the balance is 322,000. but we have this for this 322,000 in negative payment we can use this 4,000 as cash available so it means we have to calculate now excess/ deficit of cash, excess/deficit of cash, now how much it is finally the deficit it is I am again putting it in the bracket and this amount is 318,000.

Because, now we are going to use this, 4,000 so finally this deficit with us is 318,000 dollars. Now from where this amount will come if you want to carry on the business you have to arrange 318,000 dollars and this amount will come from borrowings from the bank.

Its information is given to us very clearly itis given in the case if you read it carefully itis given to us that minimum cash balance is required 25,000 dollars to be maintained all the times assume that all borrowings are effective at the beginning of the month and all re-payments are made at the end of the month of re-payment, it means we can borrow for the negative balance if we have to pay more than the collection than the amount can be generated by way of the borrowing from the bank which is the normal practice with all the business is that you can borrow for your short term payments in the form of working capital loans which are borrowed on the basis of months, weeks and some time on the daily basis.

Whenever we need the funds we borrow from our working capital account and whenever we have the surplus funds available we can deposit interest is charged only for the period for which the funds are used by the business. for example today we need the fund say 10,000 rupees or dollars we have a short you can go you have a right to check in and withdraw the amount from the bank from that sanctioned amount there's a loan account or the working capital account will withdraw that 10,000 rupees and we will make the payments tomorrow means comparing the collection to the payments we had a surplus of a 10,000 rupees or dollars.

So, that 10,000 dollar immediately will return back to the bank and interest will be charged on for that 10,000 only and for a period of 24 hours means one day. It's not the case that you will be charged interest for the any amount of period or any amount only this is beauty of this account which is miss keeping the financial expenses of the businesses under control this is the beauty of this account that you need the funds you borrow from the banks and you have the surplus you return it back to the bank you will be charged interest only for that much period of time and only the amount of borrowing.

So now this is very very clear cut arrangement this form also has that if there is surplus they will deposit and if there is a shot coming means shot fall they will be borrowing from the bank but the condition here is borrowing will be in the beginning of the month that is the purpose of the budgeting right, there's a purpose of budgeting because while preparing this cash budget we are not in the month of June now we are going to be in the month June in the realistic situation for example currently we are in the month May, we are going in the month of June next month.

That's why we are preparing this budget for the next month that what would be our cash position and we know it that at end of the June our net balance will be negative to the tune of 318,000 dollars so in that case, we will be required to borrow from the bank 318,000 dollars so that borrowing we will do in the beginning.

So that, we are comfortably making all the payments and no payment is stopped or denied to any of the suppliers. So we are making advance arrangement for example we come to know may be we have not prepared any budget and the month of June we come to know that say tomorrow we have to make to make payment of 10,000 dollars and our bank balance is a negative. Our bank balance is not a credit balance it is a debit balance it can be because (this) this account sometime become debit or sometime become credit the short this term borrowing account working capital account can have the negative balance also can have positive balance also.

And largely it remains the negative balance because borrowing are more than the deposits we make so if it is situation and if we have already borrowed more than the sanctioned limit the limit of the working capital by the bank. So we will be in a great trouble we won't have the money to make the payment at that time we don't have money arranged from any other source also so that will create a problem that situation is called as a technical insolvency of the firm, firm is not insolvent but technically insolvent because at the moment if any payment is due to be made and you don't have money for that than from where you will make the payment so technical solvency has always to be avoided.

For avoiding the technical insolvency we prepared the cash budgets in advance by preparing cash budget for the month of June we have known already that our balance will become negative at the end of June so we have to make advance arrangements that's why the beginning will be in the sorry the borrowing will be in the beginning of the month.

So we are already going to borrow means when we are going to enter in the month of June we are starting means we have that lets say balance available for the operation is (400) 4,000 dollars plus we will borrow from the bank 318,000 dollars so that our net balance at the end of the June becomes means the payment are equal to collections, collections are equal to the payments other way around you can say your inflow is equal to outflow, outflow is equal to inflow and the net balance is neither positive nor negative it is zero. But the closing balance will be 25,000 rupees which you have to keep safe in the month of beginning of June that will be the closing balance for the month of June, and finally that will become the opening balance for the month of July.

But in the real sense that amount have no value or no use, because you cannot use that 25,000 dollars for making any kind of payments. Now a question arises when that 25,000 dollars will be used by the firms if that is not to be used than why it is being kept that amount will be used by the firm in a case for example, they are not able to raise the funds for making the current payments from any other source previous month we saw in the month of June we have seen it that our balance has become negative by keeping 25,000 dollar as a safe balance, minimum balance desired balance 4,000 is available but net payment when we saw that is 3,18,000 extra.

So it means total amount means after adjusting 4,000 available cash also we have a short fall of 318,000 dollars from where that amount will come. Normally we have a credit line or the working capital account with the bank so we can borrow that money that facility is given by the banks in all the countries in India also that facility also very say largely use by the firms for meeting the short term financial requirements.

So we will see that yes we can immediately borrow in the month of June 318,000 rupees in our account that money is available and whenever payment has to be made we will keep on writing cheques and those will be cleared by the bank because we have a already borrowed from the bank but for example whatever total borrowing was possible from that working capital account may be it say CC limit account cash credit limit account or the working capital loan account.

But for example that limit is over, and still we have the more payments to make bank has refused to give us the further borrowings or allow us further borrowing or further short term loans so at that time this minimum balance of 25,000 dollars will be used by the firm or that will again will be the critical situation for the firm that our difference is of 318,000 dollar 318,000 dollar extra we have to pay and we only have 25,000 in our hands so at that time we will have to look for the other revenues that total payments 318,000 after using that minimum cash balance of 25,000 dollars still there is the big short fall of the cash so we will have to means keep the things going on for that you have to look alternative sources of the cash.

So that kind of difficult situation should not come should not arise so what we do we always remain prepared and budgeting always helps us that what is going to happen at the end of the particular period may be it is one week, one month, one year or more than that. So that firm is always in a comfortable position with regards to its cash and whenever there is any inflow that is available and if there is any outflow we have the cash for that and we are always comfortable in making the payments.

So now the next part in this cash budget we are going to do is. that we will continue with the statement means I will continue with this statement in the lower part may be on the another sheet that now we will have to show here from where the funds will come so in next part we will start doing it is that is financing arrangements, from where the funds will come 318,000 short fall from where it will come.

So we will (means) continue with this this budget for the month of June will show here financing arrangement so from the bank borrowing that is 318,000 but the condition here is you have to be very care full while looking at this condition what is the condition that also assume that borrowing that effective at the beginning of the month and all repayments are made at the end of the month.

Interest is paid only at the time of repaying the principle the interest rate is 10 percent per annum round interest computation to the nearest 10 dollars all loans and repayment of the principle are must be made in the multiple of thousands in the multiple of thousands for example what does it means multiple of thousands means there for example now we require here to pay extra more than our collection just 318,000 dollars since it is in a multiple thousand, but for example we have to pay for example 318,500 dollars.

3 means 318,500 dollars for example this the payment, so we will be not borrowing 318,500 dollars, but we have to borrow 319,000 and we have to pay extra interest on that 500 dollars which we otherwise not required. But this is the condition of the bank that we will not allow you to borrow you in the fractions you will have to borrow all ways in the multiple of thousands so that this is very is to keep account for the bank also for the company also and if any way you are borrowing more than your requirement you have to agree to those condition of the bank and you have to pay the extra interest on that borrowing.

So but in this case luckily we have the balance which we need to require to borrow from the bank is 318,000 dollars and will be borrowing under the financing arrangement so we will continue this with this statement and for the month of June by putting here at heading that is the financing arrangement and finally we will see what is the closing cash balance for the month of June. So that complete financing arrangement and calculation of the closing balance of the cash for the month of the June, we will work out in the next class, thank you very much.