# Working Capital Management

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## Lecture - 02
## Introduction

Welcome students. So in my previous lecture I was talking to you about the different types of the current assets in the balance sheets of the companies and I was say sharing with you that these assets are called as assets but in the real sense companies do not require these assets. If given a chance to do the business without these assets I think they will be or the businesses will be the happiest lot right.

So were talking about the 2 assets, current assets like inventories and debtors. We talked about inventories say are there in the balance sheet because we have to keep the inventory and there is means no possibility that without inventory we can have a complete just in time system of inventory management that on the one side the raw material a truckload of raw material is coming from the supplier's place and is going to the plant.

And then from plant you are converting it into finished product and it is going to the market and we are not keeping any say any inventory with us, that is not possible. We do not want but we have to keep inventory because supply chain arrangements are not very good in India and second thing is that sometime we have to keep certain things in the stock because we receive sometime unexpected orders, so of the finished goods especially I am talking about.

So there might be that we know that we are manufacturing some product in the market maybe any consumer durable you talk about say we are manufacturing the color TVs and we have standard set of distributors in the market or the retailers in the market and we know that how much they can demand over a period of time, over the different months in a year or maybe if you set aside the festival season then what is the normal demand in the other say 9 months or 9 or 10 months in the year so that we know and that much of the production we can ensure.

But sometime what happens that we will see some say you can call it as unexpected orders which are not very regular orders but sometime we receive it. For example we are at IIT Roorkee here and for example IIT Roorkee decides that in every classroom we will install the color TVs so that we can use them as a teaching aid. So it means IIT Roorkee may place an order of 300 color TVs or 500 color TVs to one company say Samsung, Sony, or any other company.

So and if they have not assessed the demand earlier they may be forced to lose the order. So that at that cost that will be a very heavy cost for the company and that cost is called as the stock out cost, cost due to the product being out of stock. So that is again a cost and if that order if the company loses in that case that will affect the profitability of the company.

So it means just because of the say interrupted or the very and not very successful supply chain arrangements sometime because to avoid the stock out cost or sometime because of many other reasons you have to keep the inventory so we are to have the inventory and we are keeping the inventory but ultimately inventory has a cost and the company should be efficient enough.

The business or the firm should be efficient enough to add up their cost into the total cost of production and to keep their margins intact. If they have a good credibility in the market so they can already they can adjust their inventory cost. But if the price is the is a problem in that case you can say that inventory cost is the cost which the company has to manage somehow but you cannot run the show without keeping inventory as a current assets and you have to keep it.

Similarly, we were talking about the debtors. So they come out and they appear in the balance sheet because of the credit sales. So it means we do not want to sell on credit but we have to sell on credit because with only selling on cash is not possible. So next you talk about the other current assets for example we have other current assets like bills receivables, prepaid expenses. Bills receivable are again some sort of sundry debtors.

They also appear when we sell either on credit or we give lend money to somebody so it becomes a bill receivable which we have to miss which is the expense incurred today and that has to be recovered at the latter date whether it is a goods or services or cash or anything which is given today and we have to recover it so the firm's efficiency will be that if they are selling on credit or they are if they are lending some cash to somebody they should be able to add up to that the interest cost.

And if the buyer is ready to pay the interest cost in the purchase price in that case there is no harm in selling on credit. But if the cash and the credit price is same in that case this will be a loss to the firm. So nobody would like to sell on credit but we have to sell on credit because everything cannot be on cash.

So because of that you have debtors you have receivables and only thing that can save the company is that if you are selling on credit period of say for 2 months or say 45 days we should be able to add up the interest cost at least the cost which is incurred or cost to the firm that they should be able to add up to the total cost of production because financial cost is a very important cost nowadays.

You cannot simply say that finance has no cost. It is a very important cost because if it is our own money we are investing into the credit sales or manufacturing and then selling on credit it has the opportunity cost and if it is borrowed money we have to pay the interest to the source from where we have borrowed the funds as a firm so why not to recover that interest from the buyer who is buying on credit and you might have seen that these prices are different.

When we buy something on cash from somebody we pay a different price but when we buy something on credit from somebody we pay a different price so but we do not want to have any debtors or bills receivables but we are forced to have we have to sell on credit. Similarly, you talk about the prepaid expenses. Who would like to say make the payment in advance? Who would like to make the payment in advance, prepaid expenses?

And why they make the prepayments because sometimes it happens that the product that we are manufacturing the raw material of that product is scarce in supply that is short in supply. To ensure a regular supply from the suppliers we want to make sure that yes we are making advance payments to the suppliers so that he is not interrupting our supply.

To have uninterrupted supplies of certain kind of inputs certain kind of the raw materials we would like to have say for example now we are a firm which is using as a raw material say coal or we are using petroleum products, diesel as a input or as a source of fuel or source of energy. So sometimes what happens that these things are sometime short in supply.

So if they are short in supply in that case we have to sometime make the advance payments to the suppliers so that they are also under pressure that people or the companies who had paid them in advance they have not to be say face any kind of the interruptions in the supply of material so we have to make the but who would like to make the advance payments prepayments.

Ultimately, we are compelled to make the prepayments otherwise we would like to make the payment after the receipt of the material. But prepayment we call it as asset but I think it is not a real asset. Similarly, you talk about the advance deposits. Like prepaid expenses we have to say make some advance deposits with the suppliers. This is also like prepayment payments but we are forced to do that as a firm as a business because we want to run our business smoothly, successfully.

No interruptions we are ready to face or to bear so we want to keep the supplier happy so sometime we make the prepayments, sometime we give the advance deposits. All these are current assets but we are not interested or we would not like to have these assets but we are ought to have. Similarly, we have the marketable securities. Marketable securities are very short term investments.

Sometimes what happens and this is a the way you can say reduce the cost of your cash. We have say cash is again a next asset I am talking to you, you can see in the balance sheet that is the cash, cash in hand and cash at bank. So two because if you are keeping cash as a cash again it is also asset but if given a chance to me to do the business without cash I will be the happiest person. I would not like to have cash any cash with me. Cash in hand only has a cost, no returns.

Cash at bank only has a cost, no returns. When you keep the business cash in the bank that is kept in the current account. That is not kept in the savings account. Businesses are supposed to have current accounts and current accounts don't earn any interest from the bank. Banks never pay any interest on the current account. Banks only pay interest on the savings as well as the fixed deposits.

So if you are keeping some part of the cash in the bank in the current account we are not getting any interest on that but keeping that cash has a cost. Sometime what happens that bank allows the company that in a day you are allowed to have 3 to 4 transactions as free but if you your number of transactions increase beyond 4 or the sanctioned or the pre-agreed limit of the transactions then you have to pay the cost per transaction.

So it means even you are keeping cash in the bank you are paying the cost to the bank when you are say increasing the number of transactions and since we are in the business so you cannot restrict the number of transactions from say between 3 to 4. Sometime it increases and when the transaction increases we have to pay the cost to the bank. Similarly, cash in hand. Cash in hand, when you are keeping cash in hand you are keeping it as a for the precautionary purpose.

We do not say all the times require the kept cash but you have to keep the cash. So if you are keeping the cash it has a storage cost. It has the security cost. It has say number of other cost but that cash is not earning for you. So to minimize the cash balances whether in hand or at bank firms sometimes resort to the option of converting part of the cash into the short term investments and those short term investments are very short term investments.

They are called as marketable securities. These days we have investments maybe even for 24 hours. If you have surplus cash and you see you do not require that whole cash till tomorrow evening 24 hours for example if we have, we would like to invest that cash in the market. You can make it as a call deposit. You can invest it for a very short interval of 24 hours. You can invest it for 3 days, 1 week, 10 days, 15 days, 1 month.

If you do not require certain amount of the cash for that given period of time, it is better to invest that in the market. We can earn some 3 to 4, 5 percent of the interest from the market. So that very short term investments which are kept as a you can call it as in the language of working capital management we call it as backup liquidity right. Cash is a pure liquidity.

Cash is the pure liquidity and the marketable securities are backup liquidity. Marketable securities, why we call them marketable securities because anytime when you need the cash and if you do not have the cash within a few hours you can convert those securities into cash. If you know that for example we have to make a payment of to a supplier tomorrow maybe tomorrow by maybe 10 o'clock you have to send the cheque.

So you know today at 10 o'clock you have 24 hours. You can convert some of the securities into cash within 24 hours and by tomorrow you can if you have to make the payment of say that payment to the supplier in cash you have the cash with you and if you want to pay a cheque then you have to assess that if we issue a cheque tomorrow then in how many days he is going to collect that cheque from our account so you have to keep that cash ready in the account.

So you can easily convert those marketable securities into cash or and that cash can be deposited in the bank account so that in the next 3, 4 days when the cheque will come back in the account for collection we have maintained that much amount of the cash in the account. So it means all these current assets they do not earn anything for us other than marketable securities, short term investments, very short term investments they earn some interest.

But neither inventory nor debtors nor receivables nor prepaid expenses nor even advance deposits nor cash in hand or cash at bank earns anything any income for the business but we call these assets as the say all these items as assets. They are in the balance sheet as current assets. Other than the marketable securities all these assets have the cost. They do not have any kind of the returns. So in this case given a chance to do the business without iota of these current assets I would be happiest person but it is not possible.

So once you have to keep the current assets as a true manager of your current assets or working capital your approach should be that you keep the level of these current assets. I would not say as low as possible or as maximum as possible. I would use the word optimum. Optimum is neither more nor less. It means how much inventory you keep normally you own normally so that successfully the business operations can be done, you keep that much inventory.

Without losing anything if you are able to sell on credit, you sell that much on credit. If you are comfortably able to make the payment in advance, you make the payment in advance. If you how much cash you require normally for day to day operations you keep that much in hand and then some in the bank and that cash which you do not require for say next couple of days or maybe next week or 15 days or 1 month, you convert that cash into marketable securities.

So other than marketable securities these current assets are not going to earn anything for the firm. So keep their level at the level of means their quantity at the level of optimum level of current assets and then we come to the liability side.

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**Balance-Sheet of ABC Ltd. As on 31st Dec, ....**

| | Liabilities & Capital | Amount | Assets | Amount |
|---|---|---|---|---|
| | Share Capital ........ | | Land | |
| Add | Reserves & Surplus ........ | | Buildings | |
| Less | Drawings ........ | | Plant & Machinery | |
| | | ........ | Furniture & Fixtures | |
| | Debentures | | Goodwill | |
| | Long Term Loans | | | |
| | Mortgages | | | |
| | Current Liabilities | | Current Assets | |
| | Creditors | | Inventories | |
| | Bills Payable | | Debtors | |
| | Short term loans | | Bills Receivables | |
| | Outstanding wages | | Pre-paid Expenses | |
| | Outstanding overheads | | Advance Deposits | |
| | Provision for Dividend | | Marketable Securities | |
| | Provision for Taxation | | Cash at Bank | |
| | Advance from Customers | | Cash in Hand | |
| | Other Current Liabilities | | Other Current Assets | |

In the liability side we have what is here that we have here the creditors. Then we have here the bills payable. Then we have here the your short term loans and then we have the outstanding wages and then we have the say your outstanding overheads, provisions for dividend, provision for taxation, advance from customers, and other current liabilities right.

Now I told you in the last lecture also that when you talk about the sources of the funds for the business, they are 3. You must have heard about only 2, that is the short term finance and the long term finance. Short term sources of the finance and the long term sources of finance. But I say that there is a third one also which is called the spontaneous source of finance. Spontaneous is the self-adjusting source of finance.

Self-adjusting source of finance I would say that for example you talk about when we are saying here we talk about that is the creditors. Now the creditors are the suppliers. When the supplier supply to the firm on credit now they are called as the say suppliers and till the time you make the payment to them they continue adjusting in the balance sheet. This is a current liability. Similarly, we have bills payable.

Sometimes we have borrowed cash for short term purposes so we have to it is not a loan, it is a you can call it as a other way around arrangement between say the two business. So they are called as bills payable. So when you are have to create the current assets you have to fund the current assets and funding the current assets under the working capital we learnt here that we have 3 sources of finance and out of the 3 sources spontaneous finance is the cheapest most.

It also has a cost. I would not say that it does not have a cost. It also has a cost but as compared to the other 2 sources it is the cheapest source. Now if you say that you have say spontaneous finance yes the cost is minimum. Then you have once that spontaneous finance is fully exhausted means if you want to buy the raw material then you have to keep it as a stock. Your approach should be as a true manager means I would say that the wise student of working capital management. Maybe you can be CFO of any company tomorrow.

You advise your purchase department that maximum purchases you make on credit. So I am saying that spontaneous finance has a cost means that when you buy on credit supplier will not supply you on the price which is the same when you buy it on cash. He will load that interest factor which is paying to the his source or his opportunity cost to that the cost of the price of those credit sales.

But as compared to your short term funds and the long term funds, spontaneous source will be cheapest having the lowest cost. So our approach should be to invest minimum cash in the purchases of raw material we should buy it as much as possible on the credit. So in this case the creditors are the spontaneous source of finance. They are called as self-adjusting source of finance.

Because suppliers, we have the long term say relationship with the supplier and supply terms are pre-decided and supply terms are pre-decided. It means say somebody is supplying us any raw material and the terms between the supplier and the buyer is that he will supply it on a credit period of 2 months for a period of 60 days and the firm also knows who is buying this material from supplier, any supplier or number of suppliers that after 60 days bills of different suppliers will become due.

So they will make arrangement in the bank so that if they issue the cheque against the bank account so they have a sufficient balance in the account for that because it is a routine matter. When we are buying on credit we are supplying in the market. Partly we are supplying on cash, partly we are selling on the with the finished product we are selling on credit. We are also receiving from our say buyers who are buying it on cash or credit.

Then money is going to the bank account and then we have to on the due date when the payments of the different suppliers are becoming due we are writing the cheques and then we are making the payments. So it means some special pressure is not there in the mind of the CFO or on the finance department that we have to make the payment of this much of the suppliers and we do not have the money.

As compared to arranging the short term funds, short term funds are basically the bank finance or maybe you are arranging it from the different sources, maybe say public deposits or maybe loans from other financial institutions. There you have to make some proper arrangements. There some extra efforts are required for arranging the short term terms. Similarly, you have to make some efforts for the arranging the long term loans.

But in case of the spontaneous finance we have once have an agreement, the supplier and buyer have the agreement. Supplier keep on supplying and on the due date when the due date for the different supplies becomes comes automatically cheque from the finance department goes to him. He presents the cheque in the bank and then the from the bank account of the buyer who is the manufacturer of the finished product his account is debited and the payment is made.

So this is not creating a special pressure in the mind of the finance department or the purchase department or maybe in the minds of CFO or people in the finance department, it is self-adjusting. It is a routine decision. We are getting the material and we are making the payments and we are keeping in mind that how much money we have in say in our in our bank account how much payments we have to make over a period of time, that is a that becomes a routine process. Because firms normally resort to the process of the cash budgets.

Once any firm is making the cash budget, say the time horizon is, if you want it to very efficient cash manager then you have to reduce the time horizon of the cash budget. Say if efficient firms, very efficient firms are keeping the time horizon of the cash budget is one week. If we do not have, we are not that much efficient and we do not have that much of the resources we can raise it to 15 days or maximum it can be 1 month, 30 days.

So if you have a cash budget for 30 days, in that cash budget you know it that over a period of time in the different days in the say next 30 days, how much payments we have to make to different suppliers. We have already made the provision and we are sure that according to that cash budget we are maintaining the cash in the bank account and automatically we are writing the cheques.

But in case of the short term loan, if you have to arrange the short term loan you have to make some special arrangements for that special efforts for that and once that short term loan is exhausted you have utilized that, you have to repay it back to the bank or maybe the source from where we have raised and we have to go for the complete full-fledged boring agreement for the next say amount of the loan.

For the next loan we will have to do the same thing what we did in the past. But in case of spontaneous finance we do not do that. So our approach should be that if you have decided to have this much level of different current assets or given level of current assets then from where the funds will come now to fund these current assets. Now we have come to the liability side we came.

So I told you that first of all you try to have maximum funds from the creditors, automatic supplies. So if you are buying it on credit, we do not need to pay them immediately, we will pay them after 2 months. So it means it is a automatic source of finance. Bills payable is something like this that we can borrow for the short intervals from one business to other business, that can be possible.

Once this spontaneous finance is fully adjusted, self-adjusting source of finance is fully exhausted then you resort to the next source that is the short term loans or the short term sources of the finance and similarly just before that short term loan I would say that creditors, bills payable. Then you talk about these 2 important other things is the outstanding wages and salaries and outstanding overheads. They are also the spontaneous sources of finance.

See the higher employees, maybe they are plant workers or they are office employees, we hire them on one particular day. They work for entire period of 30 days or 1 month and we pay them after 1 month. Do they require or do they ask for the salaries before 1 month. They are giving a services to the firm for a period, complete period of 1 month and after 1 month you have to make the payment to them.

So it means for 30 days you do not need to bother about the payment of labour that is the wages and the payment of the salaries to your employees, office employees again is spontaneous source of finance. Similarly you talk about we have number of other inputs. You have the power requirements. You have water requirements. You have lubricants requirements.

You have some other sources of the energy or the fuel maybe the coal maybe sometime save petroleum products in the normal course. We have supply arrangements at least for 1 month. Electricity supply, company is not going to give you the bill every day. They bill, some companies collect their bills in once in 2 months. Some companies have reduced the time horizon now to 1 month.

So they are going to collect it but at least means they are going to collect it for after 30 days but at least for 30 days they are not going to ask you to make the payment. So you got a automatic spontaneous credit for a period of 30 days. Maybe it is a supply of electricity, it is a supply of water, it is a supply of any other kind of a small inputs including material then you talk about the wages, salaries.

All these sources at least, they are not going to ask you any kind of the funds for a period of 30 days or 1 month and in case of the supplies of the major inputs we can have arrangements for 2 months also. In India the credit period which is there which is existing in the manufacturing sector in India that ranges from 45 to 60 days. If somebody is very efficient buyer he can make the supplier agree that I will pay you after 60 days.

Every consignment for I will pay you after 60 days but if it is not that much efficient minimum credit period you can expect for 45 days or at least for 30 days. So if we are below average it means any firm can be given a credit period of 30 days. So it means for 30 days we do not need to bother for the payment. So it means this is the self-adjusting or the spontaneous source of finance.

After 30 days we have made cash budgets so it means we will have the funds for paying the wages, salaries to the suppliers, power bills, water bills, we have that much of the provisions. You see for example it is not a question of business. In the our say domestic affairs also at the our household level also we normally think of that how much payments we make monthly. We have to pay the electricity bill. We have to pay the cable TV bill. We have to pay the water bill.

We have to pay for the grocery. We have to pay for the other kind of inputs. We have to pay the fees of the kids. We have to pay for maybe any other input which we require for a period of 1 month. We make monthly arrangements or we make the arrangement or we make the budgets for 1 full month. So it is  happening at the household level, at single individual's level. So if you talk about a company, if you talk about the business and means if you talk about the business in that case automatically this budgeting is there.

If in case of the one household in one family if you prepare a monthly budget then we can easily prepare the monthly budget at the corporate level and in that case we do not means put some extra pressure on our mind or on our head. It is automatic. It happens every month and it is a self-liquidating or the self-adjusting source of finance.

So try to have maximum funds as a true manager, efficient manager of working capital from the spontaneous sources of finance and then once that is fully exhausted that there is now no scope to have any credit from the market then you resort to the short term sources of funds. We have 9, 10 short term sources of funds, I will discuss with you later on but most popular in India the short term source of the fund is the bank loan.

And it is because of the easy availability of the bank loan to the businesses for fulfilling their working capital requirements that the other 9, 10 sources have not been say utilized by the Indian business or the Indian business firms to that extent to which it deserves. So in this case means if nothing else is available bank finance is easily available. So when you borrow from the bank you can borrow for the short term, short period and for the long period.

When you borrow for the long period it means you have to pay the higher rate of interest. If you borrow for the short period you have to pay the lesser rate of the interest. So it means because in India now also we have the time term structure of interest rates. Longer the maturity period, higher is the interest rate. Shorter the maturity period of the loan, lesser is the interest rate. So it means since we are going to invest that cash that finance to finance the short term assets or current assets and current assets are least productive.

So our cost to fund these assets should also be as low as possible. So after spontaneous finance resort to the short term sources and once the short term sources are fully exhausted then you can think of utilizing the long term sources of the finance. Long term loans, when you borrow long term loans or the money for the long term purposes in that case what happens? Part of the long term loans or part of the long term borrowings can be used for the short term purposes.

The funding agency itself a loss that sometime remains a inbuilt clause in the borrowing agreement that say 25% of the total loan, long term which the bank or any financial institution is giving to the company, to the firm, 25% of that can be used for the short term purposes or for the working capital purposes. It means that with the permission of the financial institution we are utilizing but you see they would not reduce the rate of interest.

You have to pay the same rate of interest. Only permission is that the long term funds provided out of that 25% can be used, maximum up to 25% can be used for the short term purposes and remaining 75% certainly has to be used for the long term purpose for which the funds have been provided. So in this case, but means the minimum investment should be from the long term sources because the interest rate is very high on the long term borrowings.

So if you are going to invest very expensive long term borrowings for the short term purposes especially in the current assets which are least productive so there is going to be a mismatch between the financial cost and the financial returns. Cost is very high, somewhere 18-20 percent and the return is almost very low.

Because if you sell anything on even your finished goods if you sell on credit and you feel that if I am selling on credit I can load my credit sales with the interest which I am paying to the financial institution and if that interest is 18-20 percent if you load your credit sales with 18 to 20 percent of the financial cost your price of that product will be very high and nobody will buy that product even on credit.

So loading is also allowed if the cost of funds is at the acceptable level and which can be maximum for the short term funds. Short term funds we pay in India somewhere around 10-12 percent. So if it is 10-12 percent you can increase the cost by 10-12 percent. Say for example if you buy the cash or something on cash, I will pay you or I will sell you a pen, for example we are manufacturing the pens. I will sell you this pen for 10 Rs.

But if you want to buy it on credit I will load it with 10 % or somewhere 15% so I will sell it to you for 11 Rs or 11 Rs 50 paise. But if you say I will be selling it to you for 14 or somewhere 13 or somewhere 12.5 I think he will say no I do not want it because I have to sell that pen in the market and if that pen is not saleable beyond 13, 14 or 15 Rs so what I am going to buy from you at the price and what the price I am going to charge from the customer so they would not be able to sell that product in the market. So loading cost has to be within control.

So it means to keep the cost of your funds under control your priority should be that you first use the spontaneous source of finance so that you can easily bear the cost. Once that is fully exhausted you go to the short term source and once that is also exhausted and need arises then you have to resort to the long term sources of the funds.

So here means now we have discussed this balance sheet in the previous class and in today's class that if you look at this balance sheet the lower part of the balance sheet which we are going to talk in the next say total 30 hours or next 29 hours in the 58 lectures we will be discussing about how to manage the lower part of the balance sheet, how to manage your current assets, how to manage the current liabilities.

And if you are able to efficiently manage your current assets and current liabilities to a larger extent upper part of the balance sheet will be automatically managed or managed to a maximum possible extent. So we are going to learn about that how to manage about current assets and current liabilities in this course of discussion under the subject of working capital management.

And this total course of 30 hours would finally make you equipped with the techniques and tools and the complete understanding with the concepts of working capital management and I am sure that you will be clear about that how to manage the short term sources of funds or the working capital finance. This is all for today. I will stop here and then next part we will start in the next class. Thank you very much.

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