Working Capital Management
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Lecture-56
Cost of Stretching Accounts Payable-II

Welcome students, so we are in the process of learning about calculating the direct cost on accounts payable that is stretched then what cost we have to pay and that say direct cost we are learning with the help of 1 small say problem we were talking about that problem in the same previous lecture also. So all again just I recall that prefer to be talking and discussing in the previous class.

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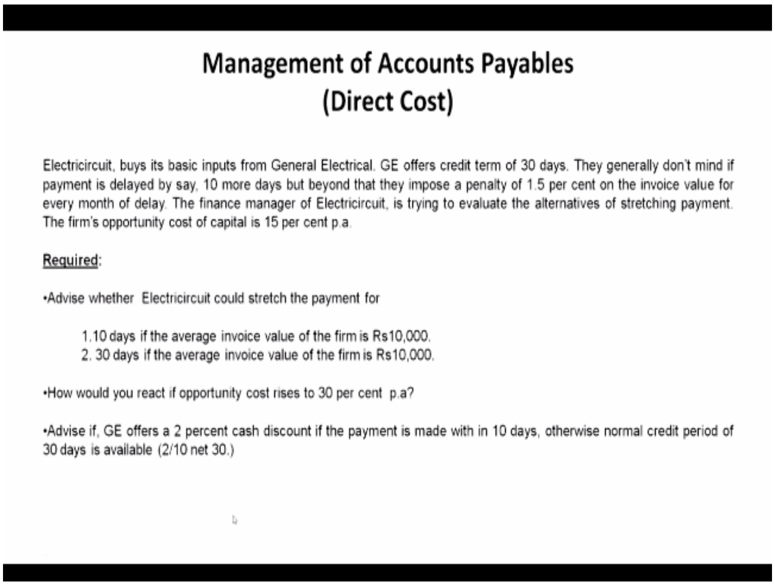

Management of Accounts Payables (Direct Cost)

Electricircuit, buys its basic inputs from General Electrical. GE offers credit term of 30 days. They generally don't mind if payment is delayed by say, 10 more days but beyond that they impose a penalty of 1.5 per cent on the invoice value for every month of delay. The finance manager of Electricircuit, is trying to evaluate the alternatives of stretching payment. The firm's opportunity cost of capital is 15 per cent p.a.

Required:

•Advise whether Electricircuit could stretch the payment for

1. 10 days if the average invoice value of the firm is Rs10,000.
2. 30 days if the average invoice value of the firm is Rs10,000.

•How would you react if opportunity cost rises to 30 per cent p.a?

•Advise if, GE offers a 2 percent cash discount if the payment is made with in 10 days, otherwise normal credit period of 30 days is available (2/10 net 30.)

And now what you have discussed in the previous class and what we have to go for now, now we have to take decision, so this is the problem already discussed with you in the previous class and here we are evaluating 3 options that if 1 company who is buying from general electric were inputs electric circuit. If they want to delete the payment then what should I do, and how long we should stretch the payment.

So that ultimately the net present value of the payment they are making to the general electric is minimum. So they have to keep into account many things that there is a reputation is also not affected the credibility is also not affected and finally they are able to say enjoy the stretching also as well as cementing reputation also. So in the previous class we discussed the valued options that will be have the opportunity cost we say like 15% and 30% right 15% and 20% per annum.

So we found out that when there is opportunity cost is 50 15%, so we have seen ah here we like to find out that what was the outcome and in that outcome I would like to share with you that we calculated the let we calculate we calculated those figures that in case when there is a no stretching means novel credit period is the first option was not that the normal credit period is 30 days.

But the company general electric does not mind if the payment is delayed by another 10 days but after that they charge or penalty or the level up in the rate of interest at the rate of 1.5 % per month is 18% per annum. So you have to think about that whether you would like to delayed beyond 40 days or would not like to delay beyond 40 days. So when the valued is evaluated options available to us be calculated that the cost that is we call it as the say C.

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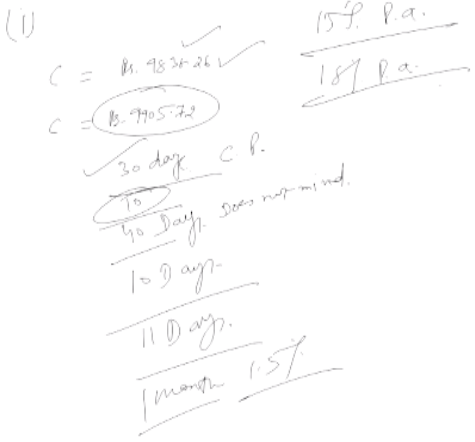

(1)

C = Rs. 98381.26 ✓

C = Rs. 9905.72

✓ 30 days C.P.

40 Days. Does not mind.

10 Days.

11 Days.

1 month 1.5%

15% P.a.

18% P.a.

The cost of stretching the payment will be calculated in the first case was that when the payment was made after 40 days on the 40th day without paying any kind of penalty we found out that what was the NPV, NPV was 98381.26 rupees right and when the payment was delayed beyond 30 days and it was made after 2 months. So it means there will be no float available as a discuss with you that one should delay even you make the payment of the 41st day.

Then the entire this float available for the 40 days will be over and for that complete period of 2 months one has to pay the penalty and if you talk about the penalty here that is 1.5% per month. So we have same here that what was that value is the payment is made on the 60th day is the payment is delayed by 30 days then in that case we have calculated that the cost to the form was how much that is 9905.72 rupees right.

So it means here the result is very clear, that if you make the payment on 40th day no penalty no peena rate of interest of 1.5% you are enjoying a credit period of 1 month and 10 days and the NPV of that payment we are making of the cost of the payment of 10000 rupees which we are making that is 9836.26 this is a net present value of the 10000 rupees when the payment is made after 40 days or on the 40th day.

And when the payment is delayed by 2 months and payment is made on the 60th day instantly the form has to pay the penalty and the penalty is at the rate of 1.5 % per month, so we have calculated that penalty and in that case when you talk about the penalty here it means we have calculated the penalty what was the model views we use the penalty only that is the 0.015, if means penalty say.

At the firm has to pay that is for the delayed period which means what was the normal period allowed, normal period allowed was 30 days, that if you make the payment that is 30 days you are given the credit period is 30 days. But if you are not making the payment is 40 days 10 more days it means 40 days. So what is there for the say general electric does not mind take care, they do not mind.

So in the company does not find the delay if it is up to 10 days but if the payment is made after 40 days then this float of 10 days this float of 10 days that will not be available between normal credit period of 30 days that is free but if you are delaying it rather than doing it for 10 days even if you are delaying it for 11 days then this float will not be available and for the entire 1 month second month you have to pay the penalty at the rate of 1.5% format right.

So when we calculate that in the previous class the cost for that is a cost of same to the form for the delayed payment when we calculated the net present value of that 10000 rupees we found out that that value was 9905.72 rupees it means net present value of that 10000 rupees paid on the 40th day that is 9838.26, but if it is paid on or after 40 days if it is played on after 40 days and up to 60th day.

So that then these float will not be available and the form pain from has to pay the penalty for the entire second month means 1 month right. If you delayed for 2 months means if you make the payment at the end of the third month then what will happen you will have to pay the penalty for 2 months right. So the first month is free but after that beyond 10 more days means after 40 days you have to pay the penalty.

So we are calculated here the penalty when we apply the modern be calculated the net present value of that 10000 rupees are being paid and we found out that that value was 9905 which is more than this value. If you calculate the first value that is 9838, but now we are ending up a 9905.72 which means the cost to the form has increased, the cost of penalty and here if you look at the penalty amount that is how much 18% per annum, 1.5% per month is 18% per annum and what is opportunity cost that is 15% per annum, opportunity cost is 15% per annum.

So now you can see because of this opportunity cost being lesser than the penalty the form is pay on the delayed payment the finally this payment which is being made along with the penalty that net present value of that has increased it will cost to the form is increased. So this is a direct cost mind it. This is a direct cost that now you are paying more by say 9838 which means how much extra we are paid.

We are paying extra 62+5 almost 67 rupees we are paying extra here, this is not all 10000 rupees but I think about when the order says rules of the rupees bigger order think about the bigger companies say for example Suzuki is buying say rubber parts or maybe tyres and tubes may be sometime the glass parts or even the steel, sometime when the Suzuki motor is buying steel from steel Authority of India Limited from the Jindal steel.

It might be a condition there and there of example in a month, say by the steel for say 20 crores or may be 100 crores. So there if you talk about the penalty that will go again ran into not even cross that not at least crore 40 lakhs. So you have to pay more and that is one thing that is a direct cost you are paying but at the same time you will have to pay the indirect cost also and that is a very heavy cost it is a very big cost.

So we should avoid this kind of situation that when we are getting you float of 10 days after 30 days we are getting the addition of lot of 10 days then why not to make the payment on 40th day why to delay, I told you that this can be done by the form but you are very rare situations that if there is a serious liquidity problem or the opportunity cost is very high. For example here the opportunity cost is 15 and penalties 18.

But in the next case you have seen already we have discussed that the penalty was 18% and the opportunity cost is 30% then you would see that even after delaying for 2 months your net present value rather than going up after 2 months of that 10000 rupees and PVD will come down because the opportunity cost is high and the penalties less. So still there is a profitable proposition that even you delayed.

So you are paying the penalty but the net present value of that payment is still less as compared to if you make the payment on for 40th day. So what we have to very careful because in the business relations this creates a problem and vision solutions is so slowly and steadily and sometime when we become the frequent default in the process that what happens at the supplier was start looking for the alternative.

And they also start feeling that this buyer is not a good paymaster. So we have to look at the alternative, so that should not be done. So here we evaluated both options in case of the when opportunity cost of 15% and then we were evaluated options when the opportunity cost was that is a second case, then the opportunity cost was how much 30% so we have seen that when the option 1 was what I am just repeat again just as I recall it.

Because in the option 1 when the payment is made active on 40th day what was the NPV, NPV was 9681.67 rupee right. So far against the payment of 10000 rupees for macro environment paying 10000 rupees electric circuit is paying 10000 rupees, but actually they are paining after adjusting for the time value of money they are paying 9681.67 rupees right. They are not being 10000 rupees.

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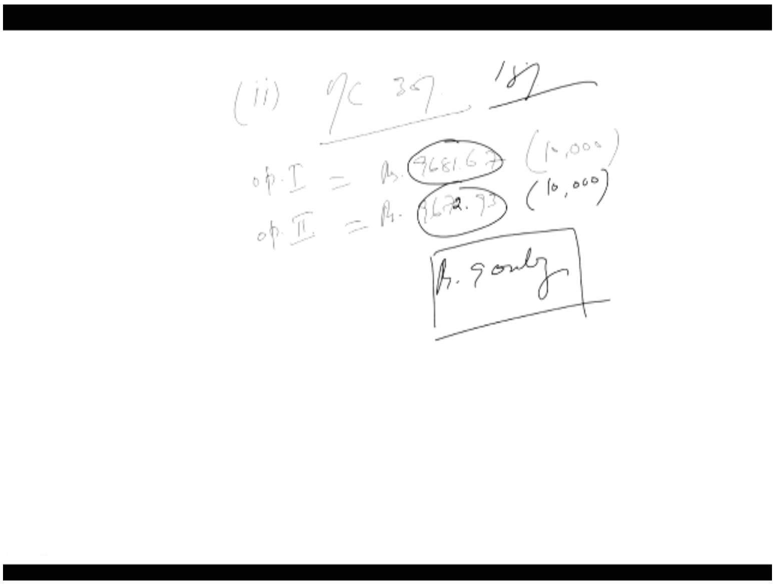

(ii) OC 30% 18%

op. I = Rs. 9681.67 (10,000)

op. II = Rs. 9672.93 (10,000)

Rs. 9 only

So it means that is the point that they are delaying the payment because payment made on the day of purchase and payment made after 40 days there is a difference because of the time value of money so it is 9681.67 and in the second option we have seen that when there is a penalty when the payment is made on the 60th day after 2 months, so what was the value of that order that value of that order ahead for the gone down 96.72 9672.93 right this si point.

So it means if you look at this is the 9672. 9672.93, so earlier go 9681.67 and now it is 9672.93, so again it is also 10000 same order but you are making this payment after some period of time. So you are making the payment here in the option 2 you are making the payment of the 60th day, in the option when you are making the payment on the 40th day, when you are making the payment of the 40th day when the opportunity cost is 30% in the penalty is 1.5 % means 18% per annum.

Option 1 you are paying 9681.67 and the option 2 you are paying 9672.96 which means is this second amount option to is still less even after paying the penalty you are paying lesser in the real terms by how much almost we can say 8.509 rupees almost nine rupees you can see or maybe yeah around 9 rupees we are paying less when we had making the payment on 60th day we are making the payment of penalty also.

But we are the NPV of that is less, so why just become reverse light has gone reverse know as compared to the previous case because opportunity cost is 30% and the penalties again the 18%. So your opportunity of earning this amount elsewhere is very very high which means in this case when you are calculating the opportunity cost we have calculated opportunity cost daily opportunity cost of divided it by the amount that is. 0.000822 not 0.000411.

So since opportunity cost has gone up even after making the payment on 60th day your NPV is still lesser as compared to the payment your making on the 40th day. So but that seldom happens because opportunity cost 30% is a very high we have just assume the situation you just assume the situation that opportunity cost is 30% is double the opportunity of right still can you see what is the difference how much is the extra gain to the form by delaying the payment for 7 month is just rupees 9 only just rupees 9.

If you look at this amount only 9 rupees, so just to save 9 rupees or maybe if it that order of rule it may be say yes to save 9 lakh rupees or maybe somewhere listen that less than that we can we are losing many other things I told you that apart from the direct cost there is a indirect cost also. So we are becoming a delayed pay master and nobody will like this behaviour because it has many repercussions like it disturb the symbioses and it creates many other problems.

So though the direct cost is 9 only sorry the direct cost is still less 9 so just we get 9 rupees in this case in this order would you like to default miss this there is a gain if you are defaulting you should be defaulting it for a very large gain. Then there is a very good thing but if the gain is also very small and say why you are delaying the payment you are losing a reputation, you are losing your name also.

So in that case it should be avoided you should not be done, so we have evaluated till now the options that is the 2 option, when the opportunity cost was 15%, 30%, payment was made on 40th day, payment was made on the 60th. Now you see there is another option available to us and that option was what is that option that option is here, it is clearly given to us that what was that electric circuit good steps for payment for 10 days.

So the average invoice value is 10000 and 30 days if the average invoice value of the firm is 10000 again, how would opportunity cost rises to 30% per annum. So we have evaluated both options. Opportunity cost is 15%, opportunity cost is 30%. Now let us go to third option, third option is advise Fz of 2% cash discount if the payment is made within 10 days. Otherwise normal credit period of 30 days is available that is 2/10 net 30right.

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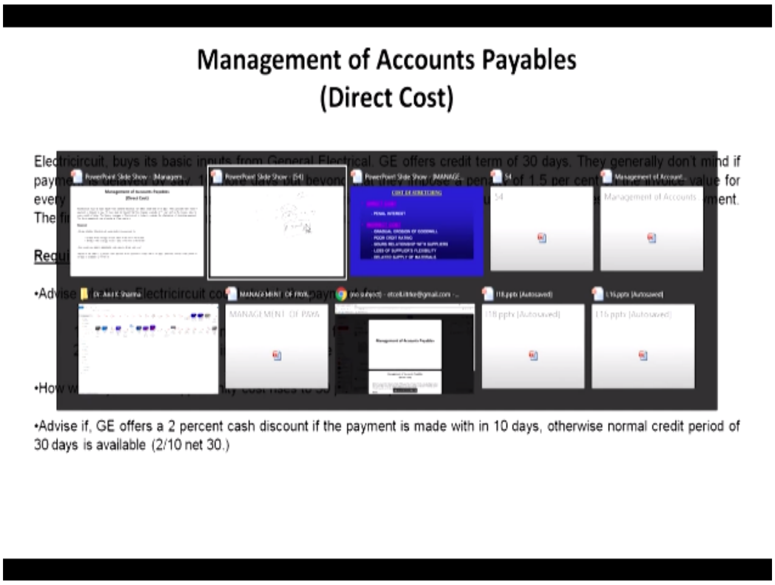

Management of Accounts Payables
(Direct Cost)

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So now let us see value of this option and when you evaluate this option so what will you say that 2% cash discount cash discount, if you take the 2% cash discount how much works out. This works out as 10000*2/100, how much it is 200 rupees, it means rather than paying 10000 rupees we are paying how much 9800 rupees, we are paying 9800 rupees. We are assuming that the normal opportunity cost is 15%.

If the normal opportunity cost is 15% then what is the value of the payment we are making if it is on the 40th day we are paying 9838 and if it is on the 60th day we are paying 9905. So if you see that only possibilities of the 15% opportunity cost, 30% opportunity cost cannot be accepted it is ruled out, then the decision is very clear that we should I wear this discount of 200 rupees.

And if you are making the payment after 10 days I will get discount of 200 rupees you are paying the minimum when the opportunity cost is 15% and the cash discount is 200. So it means we are only paying 9800 rupees and if you say for example you are losing this discount for a minute you see that if you are losing their discount then how much in percentage you are losing this can be calculated this way that is 365/30 per month.

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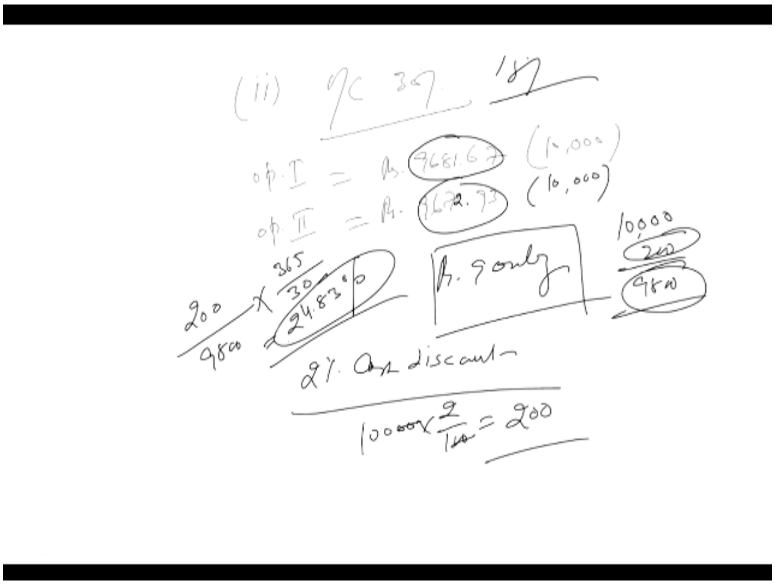

If you calculate this works out and how much 24.83%, 24.83% so your loss is 24.83%, sop it means the opportunity lost is or the opportunity cost of the law losing that discount or not availing that discount is about 25%, we have lost 25% gain which you could have enjoyed are you could have eared if you have responded after 10 days and not waited for 30 days you have responded after 10 days and you have make the payment on the 10th day.

So you have got the discount of 2% it means you are making the payment of 24 about 25% you are saving and that is 200 rupees your paying only 9800 and you are saving 200 rupees. So it means there are 3 situations per minute if you forget that 30% opportunity cost is ruled out then we can say that only 2 things are left with us. First thing is that is the opportunity cost is 15% and even in that case say you made the payment on 40th days.

So how much actually you are paying, you are paying 10000 rupees but the NPV of that payment is 9838 and in the second case if you are making the payment on the 60th day s opportunity cost is 15% how much you pay your pay something like 9905 or 06 you can say. 72 is also there. So it means you are paying in both the cases you are paying in the both the case you are paying more than the discount amount or means when the payment is being made after availing the cash discount of the 9800.

So in case cash discount of 200 and the payment made is 9800. So we have to see that these are the 3 options available to us that either you make the payment on the 40th day you make the payment on 60th day or you always the cash discount and make the payment on the 10th day right. So if the opportunity cost is 30% then there is a pointer thing that yes we should not avail the cash discount and we should make the payment after at least 40 days.

If you make the payment after at least 40 days no loss to the form, form is not paying any penalty, form is not telling the payment say inappropriately and their NPV is 9681.67 or 9682 right which is much less as compared to 9800, if the opportunity cost is it means is opportunity cost is 30% no point discussing the discount. There is no point consider in discount.

But in this case also is opportunity cost 30 you should not go for the option 2 by paying 9672 or 9673 as it is 0.93. So 9672 because just for a bigger gain of 8 or 9 rupees you are losing say bigger amount of reputation, credibility and standing in the market I think which is much more expensive as compared to the say saving you are making by delaying the payment which is just 8 or 9 rupees right.

So this is how we evaluate the order and how we look at things that how we can evaluate the situation and how we can say calculate the direct cost of stretching the payment or telling the payment. So we have seen that true costs are there direct cost and indirect cost and indirect cost we have already talked about that what is indirect cost.

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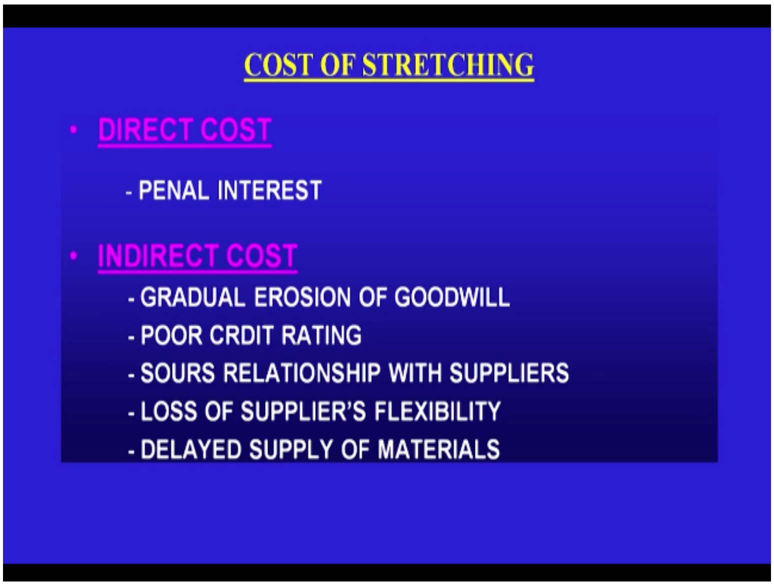

COST OF STRETCHING

- DIRECT COST
  - PENAL INTEREST
- INDIRECT COST
  - GRADUAL EROSION OF GOODWILL
  - POOR CRDIT RATING
  - SOURS RELATIONSHIP WITH SUPPLIERS
  - LOSS OF SUPPLIER'S FLEXIBILITY
  - DELAYED SUPPLY OF MATERIALS

And that is the indirect cost talked about that is what is the indirect cost and that is the indirect cost we have already talked about that is the gradual erosion of the goodwill, poor credit rating, source relationship with the supplier, loss of suppliers flexibility, delayed supply of the materials. So these are the some outcomes of the in terms of the indirect cost had been to talk about the direct cost that is rate of interest.

And that we have discussed how to calculate the direct cost with the help of a small problem and we have seen that how to factor the opportunity cost, how to factor the penalty, how to factor the cash discount. So in every case you have to take into account that what is the lost what is the gain and what is the cost of delaying the payment, that is a direct cost which can be quantified.

And if you look at the model, when you see the model here, so in that model we have said I already have discussed with you that in this model what all you have to add something here for I also that is indirect cost, so to be saw that the direct cost was in terms of increased NPV when we are paying the penalty plus you have to add in this case I. So I if cannot be quantified still you can make out that I is there.

Indirect cost is there that is in terms of the loss of reputation and the soaring of the relationship and delayed supplied by the suppliers to the company. So that is itself but we can quantify that also if there is a measure of the model can be developed and that indirect cost can also be quantified. But even without quantification you can make out that a part of the direct cost, there is also the indirect cost of stretching the tips right.

Now we will move to the some other important concepts with regard to the table management and these important concepts are like float management we will talk about the float management. So here we have already talked to you about the float management. So here we talk about say expanding or see increasing the length of the disbursement float. So disbursement float means that I have given to you some introduction of some day something I have discussed with you already.

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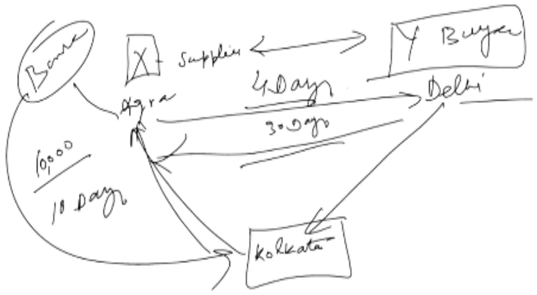

But let us just quick review of the disbursement float and the disbursement float can be like that say for example where are the 3 company, Wipro company is one is that this companies who is the supplier, x is the supplier and y is the buyer and this is the company who has to supply to x and is the payment form as a supply to y and so to receive the payment from y.

So the material is going this way and payment is coming this way right. Now for example when the buy is very strong in the market and x does not want to lose their relationship without the good relationship with buy. So in that case Y may exploited position in the market or maybe the big position of X in the market. So what will happen there is a place so we can say that x is an say Agra.

I talk to you earlier also and y is in Delhi right their plant is in Delhi, material from Agra to Delhi is coming right and then when the material is coming from Agra to Delhi and for example the credit period is say 30 days, credit period is 30 days that I will supply Agra company etc Agra will supply the material to company in Delhi and they will use that material after 30 days.

They will make the payment to the payment back to the company in Agra right, this is a arrangement but Delhi company in Delhi they have their head office wear corporate office everything and delivery plant also near Delhi with the material is going but they put a condition here that we will be regularly buying from you all over inputs will come from you, whatever condition is that our payment will be made to you after 30 days from our office which is in you can call as Kolkata right.

Our office in Kolkata or Guwahati or any near for distance place, so it means on the 30th day when the payment with this Kolkata office this invoice will be from Delhi office will go to Calcutta will be communicated online on 30th day Kolkata office will make sure that on the 30th day payment the cheque of this about see amount to be against the order is of 10000 rupees. 10000 rupees cheque reaches at Agra office of or the companies office in Agra who is the supplier.

And that is issued by the Kolkata Branch of the company whose office and plant and everything is also in Delhi. So it means because Agra and Delhi it takes only maybe one day or 2 days in the transit. So when the cheque will be issued by the Delhi. So on the 30th day cheque must be reaching from Delhi to Agra if it is from Delhi, payment is made from Delhi. Then in this case Agra branch or Agra office of the supplier will be receiving the cheque.

They will put the same date in the cheque in the bank and bank will send the cheque back to Delhi by post for the confirmation and what is the confirmation is here back to the Agra. So that will be released. For example this entire process takes how much 4 days is which takes 4 days, but when payment will be made from the Kolkata office of this company in Delhi, then what will happen though the cheque is reached on 30th days of Kolkata office is free.

They di not delay the payment, they have not default, but no from this Agra this cheque will go to bank right, the cheque will be deposited in back and the bank will send the cheque back to the Kolkata office of this company from where the cheque has been issued for verification for clearing and then it will go back and the payment will be made to this company in Agra. For example in this case the total time taken is 10 days.

So which means rather than having the disbursement float of 4 days if the payment is made from Delhi the company is enjoying your flow top 10 days by making the payment from Calcutta there is nothing wrong in this software can uses mighty position in the market and supplier is also known mining it because they see that we have got a very good customer who is a regular buyer from us.

So there is a problem of the dispersion float no problem, so at least this payment rather than coming collecting after 4 days we are collecting it after 10 days but we are otherwise enjoying because you have not to look for any other by them not to spend on the advertising we have not respond on the relationship building, we have not to look for the other customers we have only 100% production is going to the single company.

If it goes to say for 4 companies or 3 companies or 5 companies small buyers, so in that case the packaging expenses your distribution expenses your supply expenses transportation insurance is possibly increase. So the supplier is also happy, buyer is also happy and this situation when we are talking about making the payment not from Delhi to Agra, but from Kolkata to Agra. This process is called as the disbursement float.

That we issue the cheque and we make sure that the cheque reaches in the Agra office, but cheque reaches in the Agra office, but ultimately the payment has been debited from this company's office in Kolkata after 10 says right, which means you can issue this kind of cheques, you know that it this takes 10 days period of time. So please issue the cheque that will come back after 10 days, tomorrow you show against another cheque that will also come back after 10 days.

So with me is the cheque issued today will come on the 10th day, cheque issued tomorrow will come on the 11th day, cheque issued or day after tomorrow will come out the 12th day, which means by keeping a small single balance of 10000 rupees lot size is same the same what you are doing is you are doing a business of many 1000 or cores, you are not giving any balance in the bank.

Because you know at any particular day only 1 cheque will be presented and that much of the balance we have in the account other than keeping the balance of all the cheques your recent Delhi you know that our average disbursement float is of 10 days is equal to 10 time more business, because on the cheque issue today will come after 10 days, cheque issued will come tomorrow will come after 11 days which means you have a float of 10 days displacement float of 10 days.

So tables management requires that is possible this was many floors can be used is not an ethical is not illegal it does not destroy the reputation of the form it does not create the situation which is not expected on unwarranted in the market it is very useful situation and it is been banned for both supplier is getting a big buyer and buyer is getting the sufficient disbursement float credit period also+disbursement float also.

So there enjoy both are enjoy nobody minds this kind of the process. So disbursement float can be used and payment can be stressed and without paying any kind of the cost any kind of the penalty this kind of the relationship, this kind of the situation can be created. But here we have the point of caution is that we have to see the relationship between the buyer and supply that should not be at the stake.

We should not exploit the supplier that we are the bigger buyer, we are the simple buyer, so we can do whatever you want to do that should not be the situation. This should be done with the due permission of the supplier that we want to make you the payment centres we are the centralised payment office at Kolkata, all the payments go from Kolkata only. So you also will get the payment from Kolkata if it is acceptable to you.

You have the supplier relationship with us, otherwise you look for another buyer, so that is a prime with the importance the think of prime importance that the supplier and buyer relationship should be with recording and it should not be disturbed. So we finally what is the displacement float payment to a particular supplier is made from the place with the longest mailing and clearing times.

So it means for this company maybe not from Delhi but the Kolkata may be having the longest long leading and the clearing time. So that is why all the payments are being made from the Kolkata office whosoever is a supply and maximum disbursement float is being enjoyed by the paying company. So this is the one ethical way different way of say delaying the payment and enjoying the float in a legal and the important pay.

Now I discuss certain other things with you that then another accruals also and some with the point of caution in terms of the overtrading, so I think both these things I will discuss with you but that in the next class, thank you very much.