

**Working Capital Management**  
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**Lecture-35**  
**Written Credit Policy-II**

Welcome students so in the previous class we were talking about the written Credit Policy that there should not be any liberty given to the marketing staff or to the sales people to extend any amount of the credit period as well as the say every any other kind of the decision making that should not be left to the marketing people or to the sales people because the objective is only to maximize the sales or to achieve the target and not to bother about that whether the sales are on cash from the credit.

And even on the credit then what will be the position of collection of the credit sales they can be the possibility that they are selling more on the credit so we will have to face a problem of the more bad debts. So, as I was discussing with you in the previous class that people are experts in the area many say academicians also research is also have emphasised up on that firms should every firm should have the written credit policy. So, that no marketing of the staff people are given any laxity to decide the credit period or that trade discount or anything else.

So, if it is written a component then that becomes very clear to all and becomes objective also and the say content of the subjectivity goes down and that is much more in the interest of the firm because maximizing the sales is important objective. But selling more on the cash or maybe on acceptable credit terms is more important for any firm to think about that their credit sales are collected on time collected in full and the magnitude of the bed debts for the better losses is this is very, very less.

So, I was talking to you in the previous class as well that the firm should do something like working out a score that we can have the credit rating of the different buyers or we can score them or we can asses them their borrowing capacity as well as buying on the credit. And if they attain a certain score then its fine we can extend the credit. But if the any buyer or any channel of distribution is not attaining that scored then I think they should be denied the credit.

So, how to work out that score and how to have a objective and the written credit policy that is a million dollar question and we will learn about that that how to develop some framework some system that that every marketing and the sales guy has to follow that and take the decisions in the broader perspective as well as in the largest interest of the firm. So, let us see a mechanism or the Framework which is worked out.

And which is suggested to us by academicians and researcher called Smith, Professor Smith has worked out a mechanism very simple not very complex very simple and on the basis of that we can work out the score on of the different say buyers. Maybe channel is a distributor wholesaler and retailer or maybe the final buyer he as to attain certain score and if it is not possible then the scoring can be taken a cyclostail receipt and that the person or borrowing entity may be denied the credit.

You might have been seeing the these days also the banks in India they also work out some score that when we go to seek the credit maybe for say constructing a house buying a car or maybe any other kind of the loan we want to take from the bank. They calculate the score that is a credit score for a every potential borrower and if that potential borrower attaining that much score calculated by the banks on the some given or pre-specified methodology then its fine.

Otherwise it is not say possible to extend the credit to all kind of the borrowers because credit scoring is important mechanism and we should I say rely upon that and everyone who is involved in granting the credit sanctioning the credit must follow the instructions as well as must follow the tradition of working out the working out the score for every borrower so that the investment made by the firm in the credit sales is safe.

So, let us see that how in the same business terms or in case is selling the goods in the market on the credit and extending credit to the different buyers on credit how the score can be worked out. Let us learn about the mechanism about that, so it is very simple as I told you Professor Smith has worked it out and suggested to calculate score. So, let us assume some particulars here some parameters here.

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there can be possible three outcomes first outcome with customer pays promptly on the due date customer pays when the it comes due date customer pays promptly.

There can be another possibility say customer delays payment and third can be customer never pays customer never pays this can be 3 things 3 outcomes customer pays promptly, customer delayed payment and customer never pays right these can be three things. Now under these circumstances or 3 situations let us work out whether to grant the credit or not to grant the credit.

First we say start with let us assume firm takes decision to grant the credit grant credit. So, it is grant credit it means what will happen, first will write here the amount. This is the amount and amount here is customer pays promptly so what will happen. If you are going to take the decision of granting the credit what will happen sales and profitability increased this is one. Second can be increased collection expense because when he will delay the payment certainly we will have to write to him making phone calls or maybe sometime if you the issue notices.

So, we have to go for the increase collection expensive collection cost will increased and that if he never pays then what will happen we will first try what will happen increased collection expense + bad debts so in that situation this will happen in the first case with the customer please promptly we sell him grant him credit on the due date he makes the payment so sales and profitability both increased.

In the second case customer delayed payment in case the custom delays the payments what will happen that firm has to make some extra efforts to receive the payment. So, that will be causing the increase collection expense and in the third case customer never pays so what will happen increase collection expense plus bad debt losses, so, bad debt losses will increase. So, in this case first we start with something like say we will see here that first thing is that the amount.

So, we will start with the amount and amount here is that is how much amount we are selling 100 rupees to him, sales and profitability increased or return on the sales is 10%. So, it means what will happen if we customer pays promptly so sales and sales increased 100 rupees he sold to him on credit and profitability will increase by how much amount 10 rupees right. But if we delays the payment so what is the additional collection cost that is 1 rupee.

So, what will happen here that customer delays the payments increased collection expense so what happened because of the increase collection expense that 10 will be reduced  $-1 = 9$  we will

not receive 10 rupees as the profit or the profit will be reduced by 1 rupee because we have to send a notices, say make phone calls we have to spend time energy everything. So, that 1 rupee will be lost the increase collection expense. So, the firm will find you receive out of 10 only 9 rupees.

And for example in customer never pays he defaults he says that I will not pay and maybe because of any reason firm is not able to collect that credits sales. So what will happen that will be totally a bad debt for the firm. So, but the firm will not lose that bad debt just without even trying from loose only after trying sufficiently they will send him notice they will convince them they will make him phone calls, they were write to him everything.

But even after doing everything if it is not possible to recover the sales from him in that case what the firm has lost from first thing is formulas the profit means no profit is come to the firm that 10 rupees are gone and out of that 100 rupees sale 90 rupees is the cost that cost is also not recovered right. So, first formula direct loss is the cost and that cost you say for example 90, 90 rupees loss is there and in this case say for example the total loss is how much first is that is 1 rupee which they spent as a collection cost plus 90 Rupees the cost which is adding to manufactured that part that is also lost.

So, finally the total loss is how much -91 that is 90 rupees is the cost of production and 1 rupee is the collection cost so that 90 rupees is lost in the market. What is the probability of these three situations this, this and this situation? Let us find the probability now probability is probability of happening this is only assume the probability on the basis of the experience of the firm and for example the probability here is 60%.

Here the probability of happening this situation is just 35% and here the probability of happening this is just 5 only 5% so this is the 100% this makes sound and probability what is awaited value If you calculate the weighted value, weighted value in this case with me how much you can calculate the weighted value the here it will be 6, here it will be how much that is 3.15 and in this case they weighted value will be how much more -.4.55 this is the outcome of the first case that if the firm takes decision to grant the credit.

There can be three possibilities customer promptly pays, customer delays the payment but pays later on and customer never pays. So, if the customer makes the prompt payment firm is earning 10 rupees profit probability of that is 60% so weighted value is 6. If he delays the payment but

makes a payment after the delay but the firm has to spend shell out 1 rupee as a collection cost so it means firm will get only 9 rupees as a profit not for profit is lost in the expense.

So, the weighted value of that will be 3.15 and in the third case if he does not pay entire amount cost plus increase collection expensive will become the bad debt and that will be the increase collection expense plus bad debt losses that will become that is the weighted value of that that is 91 and weighted value of that becomes assigning the probability which is only 5% but 5% there that is -4.55.

Seconds situation can be reject credit the firm can say that no will not give the credit to this person on this firm. So, in that case what will happen they will take a decision that is of reject credit? So, if they reject the credit what will happen now again they will have to take the three things and the first thing here is that is the amount, second here is the probability and third here is the weighted value right.

So, in this case the outcome will be what rejects decision will be that lost sales and profitability and profitability. In the second case lost sales and profitability lost sales and profitability minus collection expense at least we save the collection expense and third case can be that is that collection expense and bad debt losses avoided. We saved everything people are rejecting the credit what will happen we lost 10 rupees.

We did not make in the sales we lost 10 rupees in the second case we rejected the credit, the second option can be second outcome can be lost says we lost 10 rupees but we did not lose 10 rupees we lost 10-1 rupee otherwise that was not going to come to us as we have seen in the first case that is 9. And the third case that if we are not granting him the credit and the probability was that he will not make the payments in that case we have saved the total that is 91 rupees we have saved here.

So, what is amount we are talking about here is that is -10 amount is 10. Second is here that is a -10 -1 that is say finally it is = -9 and in the third case it is  $1 + 90 = 91$  that the amount which we have saved is that is 1. So, you see the sign here is -91 and it is 91, we lost 91 here that is what is -91, we saved the 91 here, so that is a +91 again there is same probability here. So, the probability here is her gain 60 % probability here is that is 35% and probability here is that is just 0.05 only 5 %.

So what is the weighted value, if you calculate the weighted value here this will work out as how much that is -6 this will work out as -3.15 and here it will work out as 4.5 right. So, these are scores finally with us again as it was earlier, these score again available with us and here the score the same only the signs are changing. In this case it is +6 here it is -6 because we had earned profit here we have lost profit here.

When we are not rejecting the; when we are not granting the credit, in this case here the weighted values that is +3.15 that is weighted value because we are earned only 9 Rupees not 10 rupees but here we have the weighted value is -3.5 that we did not lose 10 rupees in this case we would have lost 9 rupees and in this situation be saved 91 rupees so the weighted value of this is to here the sign is positive, it is negative, it is positive. It is negative.

We see the sign here it is negative which we had lost miss you would have lost in case of granting the credit but if it turns out as a bad debt. But in the another case we have saved the total 91 rupees that is the cost of 90 + collection cost of 1 everything is saved maybe the probability is 5%. So, if you look at this, this is 4.55 and in this case the finally the values 4.55 earlier it was -4.55. Now I would ask you to calculate the final sum it up of all the 3 this plus this plus this how much is the value.

You again summed it up this plus this plus this how much is the value. If you will submit our final score will work out as final score of final Inspector was the science the final score will work out as that is 4.6 this is the final score the score is 4.6. So it means after say evaluating the whole thing here we are found out here is that we have used a mechanism with the help of which we can find out score and the score which we are worked out here on the basis of the framework provided to us by Professor Smith.

That has been worked out as 4.6 and this way the score for every borrower or the potential borrower can be worked out. We can think about that what could be if he is a say grant in the credit be not grant him the credit what is going to the final score and that score will remain the same depending upon the probabilities. Here in this framework the million dollar question is that assigning of the probabilities.

We know that what is the amount of sales their going to make clear we know what is our return on sales that is 10% in this case and otherwise in the practical how we know that how much is

the return on sales and we also know that what is our collection cost. Only thing is which we do not know and which we have to be very careful looking at the past behaviour or maybe if the buyer is totally new is the firm has no relationship with the buyer all the potential buyer in the past then we can enquire data about his performance on his overall financial position or his behaviour with other supplier or the other firms in the market.

On the basis of that we have to assign the probabilities. Assigning the probability is a million dollar question here most complex task here it may be possible that the customer was good but be assigned him very high probability of not making the payment it may be possible that customer was bad but we are assigned him lesser probability of probability of not making the payment of defaulting making the payment to anything may go any outcome maybe there. So, we will have to be careful that what probability has to be assigned.

Another important question here is we have assigned only three probabilities because we have taken the three cases. So, there can be more cases also say for example we are saying here customer pays promptly, customer delays payment customer never pays right. These can be 3 situation with having a broadly thought off. But there can be in between situations also which have to be practically seen.

And if not in between situations only 3 are there then the probability is a very important thing that how much probability we have to assign in this case we are staying in the first case is 60% which is larger than second probability which customer delays the payment and we have to spend on extra collection cost that is only 35%. In the third case we have assigned the probability only 5% that can be changed also.

We can make it 70 maybe 25 or maybe 5 or maybe we can have any other a set of the probabilities. So, working out of the probability will be a very, very tedious job very serious kind of the job which should be done at the firm level or at the senior level in the firm. So, that the or maybe there should be very clear cut mechanism that for example look at his financial position. So, we can assign some score on the basis of that we can think of assigning the probability.

Second thing is his behaviour with the existing suppliers in the market you can on the basis of that assign the probability. Third thing is his existing social level of the sales is making in the market and say the customers base he has that he is serving in the market all these factors can be

taken into a count and finally we have to work out a score. Maybe we can use these three outcomes, under these three outcomes in this case for example we have worked out score which is 4.6 right.

In both the case you are totally top it works out as 4.6 in the lower part 4.6 in the upper part so it means what the score means. Firm may finally have a written very clear cut policy that for every potential buyer on credit. We will work out a score and that score is not permanent that is has to be revived at every point of time because credit worthiness of the people buyers in the market keeps on changing right. It may possible that depending upon the order.

If he selling for a smaller amount he do not to spoil is name in the marker so he is not defaulting so he regular so he prompt and he is very careful in making the payment but if he increase the order size looking at his past behaviour if he can increase the order size and if he increase the order size and firms sell him for the increased amount also and once he buys at a larger scale and then he refuses to make the payment and if he starts defaulting.

Then there a possibility so firm has to have a clear cut policy but for every customer may be adjusting then on the project interval and if it is a new then we have to work out a score and credit score and on the basis of the score we will have to take decision. So, for example in this case we have found today score is 4.6; firm may have in nutshell a policy that any customer who has to be granted the credit must have a score of not 4.6 but at least 4.5.

If the score of any customer process or who attains the score of the 4.50 or crosses this score will be granted the credit automatically if this score is less in case of in respect of any buyer we will reject him the credit. Because in that case it may be possible that he will default in making the payment we have to spend a lot in say in prompting him to make the payment or if they will be there maybe possibility that he never pays firm cannot do anything beyond level it cannot be done.

So, it has to be considered as a bad debt and finally we have to bear with that losses or that bad debts. So, firm can have a written policy to the marketing force to the sales people that remains communicated let you go to the market you talk to the different channels of distribution or the customers you calculate the score of every customer every buyer on the credit and think that is the score is 4.5 or above than you grant him the credit.

But if the score is less than that do not grant him the credit so that will create a create a create a bottleneck or may be a benchmark also I would call it is a benchmark for the sales people also for the marketing people also that they cannot take a decision blind fully and without considering the credit worthiness as well as the past behaviour and the financial position of the customer and the risk the firms the sales or maybe the collection of the sales that should not be done.

In that case finally they have to arrive at because if the score is working out is 4.5 then or 4.5 or above then there is no problem I think they are quite objective and taking the decisions and he can defend himself even despite that there can be the possibility of the bad debts are the losses but at least sales and marketing people can defend themselves that we have calculated the score this was the probability of making the payment this was the basis of assigning the probability to these three different outcomes.

And finally we could make out that the score is certainly that the above 4.5 so even after that his defaulting then it is a different issue that can be taken care of. But to the score is less than 4.5 then it should not be allowed. In the bank also they are doing like this that when we go to the banks and like to borrow the money from the bank they always in calculator score age is the age of the borrower is a very important criteria his income total income is also very important criterion number of dependents on him is very important criteria.

On the basis of all these different criteria their sight some points and then the total it up. At the borrow at age that minimum score decided by the bank on the basis of the risk profile of the borrower all the potential borrow then only the credit is granted otherwise bank ask the borrower that you improve your scores. If improve the score then bank find he is a good customer if it does not improve the score then he is not a good customers.

So, here every company while selling their production in the market on credit because it is a very hard effort of the companies to manufacture and then to sell the product in the market, selling on the credit is not bad but it has to be secured credit. Since we are selling in the market without any collateral you are not taking any security. If you are taking advance tax from the buyer then there is no problem or maybe there is any other collateral we are taking then there is no problem.

But without any collateral without any security without any advance tax received from the buyers are the channels of distribution if this thing happens then this will create a problem. Many

times what happens the companies who do not have the good rating of their products in the market who's products are not known by the customers pushing those kind of the products in the market companies take the risk.

For example you want to buy a colour TV normal if you want to buy a colour TV you will go to the market and think of brand that is available Samsung, Sony or LG this kind of the products. But in the market if you go in any electronics store you find Videocon is also there and Onida is also there which enjoys lesser as a preference from the customers of the lesser rating in the market these days of course they were the leaders in the market.

Because of that changed economic scenario their preferences has gone down so people do not want to sometimes do not want to buy this products. So, even these products are there in the market. So, what happens these companies to push up there sales they give the unlimited credit unlimited period of time as a credit period to the distributors or to the owners of the stores that you keep this product on the shelf and in the store we are supplying it to you on credit.

If you are able to sell it off in the market then you say return our part to us and then you retain your part. Otherwise you are either we will collect the product back from you or wait for the sales in the market. So, in that case if that kind of situation happens companies taking a unprecedented or uncalculated or the unlimited risk because otherwise also company knows that this product if it is not passed on to the market on credit this has to be kept in to the warehouse.

So, this will create the mounting situation of the mounting inventory and inventory itself as a cost. So, because of that reason they passed on to pass on their inventory to the channel of distribution in the anticipation of the sales in the market. So, if that is a situation then it is a different ball game then the firms take any kind of the risk and then the scoring does not matter. But in the normal cases is the product is good it is acceptable it available in the market in that case we will have to be careful in deciding to whom to give the credit.

How much credit what should be the order size and what should be the credit period all these credit terms have to be carefully decided so that credit sales made in the market 100% of the credit sales amount is collected it comes back to us and nothing is caught in the market. So, this is the way how to calculate the score and how to take the objective decision and the firms can have a written Credit Policy.

Now we will talk about certain other things also that is say credit limit. How to decide the credit limit for deciding the credit limit we have the two different ways that is information credit limit and the risk credit limit. So, what are these credit limits and how these credit limit can be decided that these are the two other important things also as far as the collection of the receivables is concerned. We will discuss these things also we learn about deciding the credit limit also but that too in the next class, thank you very much.