Working Capital Management
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Lecture-37
Valuation of Receivables at Cost or Sales Value

Welcome students, so we are in the process of learning about the valuation of receivables. So, the previous class period this question that whether the receivables should be valued at the cost price or the sales value and I discuss the certain things with you that even RBI has also raised this issue and issued the guidelines sometime back to the banks that the receivables should be valued at the selling price not at the cost price.

And bank should provide the liberal finance on the basis of the sales value rather than the cost. But these days as I have already told you that these days weather to value it at the cost of the selling price that depends upon certain factors that how much additional sales we are making and how much extra revenue the firm is going to earn and as compared to the revenue what is going to be the cost. So, we can value the receivables in either way and then try to find out that if value and get at the cost is a paper of a profitable proposition.

Then we will go for valuing it at cost and then we will see at the selling price also and then we compare with the selling price the additional profit available by say investing surplus funds in the receivables are creating additional receivables and then the decision will be taken. So, it depends upon the firm to firm situation to situation there is no standard rule about it and decision will be depending upon the marginal profitability available from the additional investment weighed in the receivables.

Additional cost which is going to be there because of the say additional investment of the funds as well as the say bad debt losses as well as a collection cost and we will have to look at the situation and evaluate the this case and then accordingly as per the situation and parameters we will have to take the decision. So, let us try to understand that what should be the valuing criteria whether the receivable this should be valued at the cost of the selling price.

At what price they should be taken into account and finally what decision the firm should arrive at so I have a small example here we will try to make certain calculations small calculations not

very lengthy one and then it will try to learn that how the receivables should be valued. As in case of inventory we have a standard rule that it should be valued at the cost of the selling price whichever is lower whether same holds good for the receivables also.

As such there is no rule that at which cost should be valued it depends upon the situation and circumstance is available. So, let us see we have the situation here we will evaluate the situation and then we will try to learn that how to take the decision in the different situations.

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Valuation of Receivables at Cost of Sales Value

The existing sales of Alfa Ltd. are Rs 800 crore with an average collection period of 30 days and bad debt losses of 1 per cent. Variable cost of goods sold is 80 per cent of the selling price. If the present credit policy is relaxed, the firm is expected to increase its sales by Rs 200 crore. But the average collection period of sales and bad debt losses will increase to 90 days and 2 per cent respectively. The cost of the capital of the business is 20 per cent. Advise the firm whether it should relax its credit policy or not?

So, it is a small situation here small illustration we have here that the existing sales of Alfa Limited are 800 crore rupees 800 crore with an average collection period of 30 days and bad debt losses of 1% variable cost of goods sold is 80% of the selling price with the present policy is relaxed. The firm is expected to increase it says by 200 crores it means the firm is selling ones rupees 800 crore with an average period of average collection period of 30 days and bad debt losses of 1% and the variable cost is 80% of the selling price.

So, when you are talking about the 800 crore this is partly and the cash and partly on the profit partly in cash and partly credit and there is certain credit policy which is being followed by the company. So, it may be appropriate credit policy as per the companies rules or say credit policy devised by the company but currently the company is facing a situation that they have the slow moving inventory for example they are slow moving inventory. So, in a situation sometimes what happens that when the firm has the slow moving inventory?

So, they relax the credit policies and they would like to invest further funds in the sales or in the accounts or in the accounts receivables through sales. So, in this situation as it is given that is the present credit policy is relaxed means if the present current credit policies followed total sales are 800 crore but if the company relaxes the present credit policy the firm is expected to increase sales by 200 crore will go up by 200 crore from the 800 to 1000 crore.

For the average collection period of the sales the negative part here is the average collection period of the sales and the bad debt losses will increase to 90 days and the 2% respectively. So, currently the credit period given is 30 days when the sales are 800 crore and bad debt losses are only 1% of the credit sales. But if company will relaxes the credit policy there will be 3 ways first effect will be that sales will increase by 200 crore's it will become 1000 crore and go up from 800 crore to 1000 crore increased by 200 crores.

This the first effect, second effect here is that collection period will be increasing from 30 days to 90 days that will be going to by 3 times and 2% and the bad debt losses will be 2%. So, it will also become double that is 1% it will become 2% the cost of capital of the business is 20%. So it means the company value is making additional sales of worth 200 crore it means they will have to make additional investment in the receivables.

And for that they will have to call the additional investment cost to advice the firm to relax his credit policy or not. Means that they should go for additional 200 crores of the credit sales or not and that is only possible in the credit policy is relaxed this entire 200 crores of the sales are on credit right this is on the credit. So, do you have to evaluate this by taking into account the cost as well as the selling price value of the receivables?

And then we will have to arrive at a decision that at what receivable should be valued at whether the receivables should we valued that the cost of the selling price and how these things should be taken into account. So, what we have to do here is that is we have to use the incremental say analysis here also or the marginal profitability analysis here also. There is a technique which is called as a marginal profitability analysis. Say we are selling are currently that 800 crores we have marginal increase by 200 crores. So, total sales will be become 1000 crores. So, we will have to calculate the marginal profitability cost, marginal profitability and cost for the alternative valuation of the accounts receivable.

Marginal profitability and cost calculations for the alternative valuation of accounts receivables. And let us see that is how we can take the decision and finally arrived at conclusion that how it should be valued at. So, we will have to follow the marginal analysis marginal profitability and cost analysis.

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Marginal Profitability & cost calculation for Alternative valuation of A/Rs.

	Particulars	A/R Valued at cost	A/R valued at Selling Price
1.	Marginal Prof. of sales $200(1-0.80)$	40	40
2.	Additional Invst. in A/Rs valued at cost $\left[\frac{Rs1000 \times 0.80 \times 90}{365}\right] - \left[\frac{800 \times 0.80 \times 30}{365}\right]$	144.66	—
3.	Additional Investment in A/Rs valued at S.P. $\left[\frac{Rs1000 \times 90}{365}\right] - \left[\frac{Rs800 \times 30}{365}\right]$	—	180.82
4.	Marginal cost at 2 above. $(0.20 \times 144.66) + (1000 \times 0.02 - 800 \times 0.01) 0.80$	35.53	
5.	Marginal cost at 3 above $(0.20 \times 180.82) + (1000 \times 0.02 - 800 \times 0.01)$		48.16

So, we will be doing something like this marginal profitability and cost calculation for alternative valuation of accounts receivables for alternative valuation of the accounts receivables right. So, first one is will have to write a particulars then is the receivables valued at cost right and receivables valued at selling price. These are the three situations number one first of all number one it is first of all we have to calculate the marginal profitability of sales profitability. Marginal profitability of sales how much that is how much increase sales you are going to have 200 crores.

And what is the profitability if the variable cost is 80% so the marginal profitability his 1- 0.80 so this is going to be how much that is 40 crores and here is 40 crores weather is valued at cost of the value that the selling price the marginal profitability on the marginal sales of 200 crores is going to be 40 crore then both the cases. Now you go to the second level now that additional investment in receivables valued at valued at cost additional investment in accounts receivables valued at cost.

So, how much is going to additional investment now what is going to a new level of sales that is going to be 1000 crores and what is the valued at cost we are valuing the cost what is the cost that is 80% only and then it is going to be the investment will be what is the credit period? Credit

period will be going up to 90 days and divided by 365 right. So, this is the one part next is going to be what was the earlier situation we have the sales of 800 crores then multiplied by 80% and then it is how much days credit period 30 days credit period divided by 365.

So, how much investment worked out is additional investment in additional investment in accounts receivables valued at cost is going to be something like 144.66 and it is nil here because it is valued at cost so additional investment in accounts receivable valued at cost is this much. So, because first effect of the additional sales is going to be that accounts receivables here selling it credit period of 1 month earlier.

Now we will be selling getting credit period of 3 months so when you are increasing the credit period for 1 month to 3 month certainly your investment in the accounts receivables is going to increase. So, this part first we have to work out that how much additional investment we are going to make if we are value cost here we are value of the receivable at cost because we are multiplied this 1800 of the sales with the cost only so it is first converted the selling price in to cost price.

And then multiplied by the number of days sales are going to a blocked in the accounts receivables so this is the additional investment in accounts receivables valued at cost. Number 3 now additional investments in accounts receivables valued at valued at selling price valued at selling price additional investment in accounts receivables valued at selling price. So, simple it is now what you will be doing you will not multiply these things with the cost. So, it is going to be more simple now in this case this is it is rupees 1000/90 by 365 by we are not multiplying it with the cost now.

So it will be something like this -800 into 30 by 365 right this way we are going to take it 30 by 365 so much is going to be the investment when the receivables are valued at selling price. We are going to invest here that is 180.82 crores this is a investment we are worked out while we are valuing the receivables as the selling price this is 180.82 crores right. Now we go for the next level that is number 4 marginal cost at 2 above. How much is the marginal cost now we will have to calculate the marginal cost here.

And when you are calculating the marginal cost so that cost is going to be marginal cost that to is going to be how much that is first cost is the cost of investment and what is the cost of

investment and what is cost of capital that is 20% so, 20% is a cost of capital into 144 point what is the cost of this is 144. 66 so we are going to invest this much cost of capital is 20% so that is we are taking 20% this is one part then plus 1000 into 0.02 - 800 into 0.01 multiplied by 0.80 because the cost is 80%.

So, we have taken the marginal cost first so cost of the investment is the cost of capital and we are investing this one 44.66 crores so your first investment is the cost of the first cost is the cost of investment that is 20% of the 144.66 and the second element of the investment is that your say the bad debts are going to increase. So, there is a bad debt cost also at the bad debt cost is going to be that now the bad debt losses are going to be or maybe what we have given here is that is 2% that bad debt losses collection.

But the average collection period of the sales and the dab debt will increase from this to this. So, now again that and the investment which will have to make it that is bad debt losses and that will be 20% investment cost and 2% now it will be bad debt losses of the 1000 of the increase the sales against 1% of her left. So, it means the total cost is going to be how much that will be if you solve this the total cost will come out at 38.53 crores.

And similarly if you calculate the cost here in this case so the cost is marginal cost here is going to be how much 0.20 into how much is investment we weighed that the selling price 180.82 crores plus additional is equal to 1000 into 0.02 2% bad debt losses we are not going to get these funds back by the bad debt losses are going to be there and then -800 this is going to be how much that is 20 % in 280.2 + 1000 into .02-800 into 0.01, so we will not multiplied it by this 80%.

Because we are taking it at the selling price so the cost working out here is how much is the cost hear that is of 48.16 so now the all the calculations are in front of us we have the marginal profitability of sales which is 40 crore which we are selling say extra for 200 crores our the ratio of the cost to sales is 80%. So, cost to sales is 80 % so it means remaining is the profit the profit is 20% marginal profitability we are going to add is 40 crore. Now how much to earn this 40 crore how much additional investment you have to be additional investment we have to make is number one in the accounts receivables.

And that our accounts receivables will increase from the 30 days to 90 days that you for 1 month to 3 months so that will become 144.66 at the cost at the selling price this investment will be more because we are including profit here 180.82. So, then the receivables additional investment accounts receivable valued at cost and selling price and then marginal cost at 2, the marginal cost at 2 is how much that marginal cost 2 is here that is 2 and here you have to write one thing would be calculated here is marginal cost we will write it again here that it is marginal cost at 3.

This is the this is called as marginal cost this is the marginal cost at 3 and above is how much marginal cost here is that is 20% is the cost of capital multiplied by how much 182 is going to be the how much is a cost 182.2 right plus we are going to have something over and above and over and above this we are going to have 1000 then into 0.02 is bad debt losses in the current minus existing is 800 into 0.01 this is like this.

So it means this is an investment cost of because of the cost of capital and this is the bad debt losses. So, finally we are going to have how much that amount is going to be something like 48.16 crore now the figures are available calculations are available with us on the basis of that we can take a decision right. If you see now look at that whether to value receivable at the cost of the selling price here we are going to answer this question and in this case first of all we saw that normal sale is 800 crores.

But what if company wants to relax its credit policy then they can for the sell for 200 crores in the market but additional investment is required. So, whether the company should stay relaxed credit policy or not now we have to evaluate that situation of those propositions and for evaluating that situation what we did we calculated first the margin of profitability and that was same at both the levels then be calculated the additional investment we are going to make for valuing the receivable.

And the cost which worked out is 144.66 and then the receivables are valued at selling price this is 180.82 than at these two investment levels be calculated the cost of investment that is the marginal cost of investment plus bad debt losses, so that worked out as 38.53 crores at the cost when the receivables are valued at cost and in this case it worked out at work out as 48.164 crore and the receivables are being valued at the selling price.

Now you have to make a comparison of this and this here also this and this right. So, see if we are valuing the receivables at cost so decision of relaxing the credit policy and increasing the saved by 200 further crore or additional course is positive because here the marginal profitability is more than the marginal cost and marginal cost by spending extra 38.53 crores our marginal profitability is going to increase by 40 crores certainly there is the profitability outweigh the marginal cost so decision is in favour.

But when you if you take this receivables valued at the selling price again the profitability is remaining the same but your cost is going to increase marginal cost is going to increase. For earning the profitability of 40 crores we have to sell out 48.16 crore. So, that is not acceptable proposition and here in this situation we are we are showing that it is a loss making proposition so we should not a relax credit policy.

And we should not go for the additional sales because in that case marginal cost of investment plus bad debt losses are more as compared to the additional profitability as against the profitability when the valued receivables are valued at cost. So, I told you that like inventory there is no fundamental or golden rule that the receivables should be valued at cost or at the selling price. I told you earlier also it is a situation analysis it depends upon the situation that how much additional investment we are making in the receivables.

And how we should evaluate the receivables value at the cost is also ok valuing at the selling price is also ok this no problem at all it can be done either way but only thing is that we will have to have some logic that why we are valued at cost and why we are valuing at selling price here we have a logic that if you valuing at the cost you are ending up in the profits. If valuing at the selling price you are ending of making the losses so making decision of the function to take.

If the firm has no other opportunity cost sorry if the firm has the opportunity cost and there is no other better avenue to make this investment of 200 crores at any other avenue then it is better to make this investment here justifying that we are only investing the cost we are not investing the profits right here not investing the profit we are only investing the cost and which is 80% of the selling price by investing that much of amount and calculating the marginal cost we have found here that we are adding up making the additional profits of 1point some crores right 1.47 crore.

But if we have some other opportunity available then we have the reasons also to reject this proposition or maybe the proposal to relax the sales because in that case what we are going to do in that case we are going to end up a loses because your additional profitability is 40 and your additional cost marginal cost is 48 so I think we have also the justification to reject the credit policy relaxing decision we should not relax it right.

So, it is no standard fundamental rule whether the receivables should be valued at cost or valued at selling price it depends upon the situation and largely about the opportunity cost of the investment if we have the better Investment avenues other outside the firm we should go for that otherwise if surplus investment is possible to be made and we can think of investing that the accounts receivables then either way we can value the receivable weather at the cost of those are at the selling price like inventory here for valuing of the receivables there is no fundamental rule.

So, we say stop the discussion hear about this particular topic know the next thing which I will discuss with you is that is the changes in the credit policy. Many at times as I told you that firms as standard credit policy discuss remain the written credit policy and that remains communicated objectivity to all. But in certain cases that Credit Policy which the firm is following sometimes that needs to be relaxed and relaxing of the Credit Policy relaxing of the Credit Policy depends upon the market the market situation.

Sometimes what happens that firm’s production is not going to the market in the normal course and inventory is of the firm amounting right. We have same situation like that we are manufacturing 1000 units of a product per month and he was telling that easily maybe some 800, 900 units easily selling in the market both credit and cash and only 150 units were in the godown in the warehouse. So, that was the normal stock situation.

But maybe because of certain factors may be the availability of substitutes in the market or maybe sometime availability of the similar products as the lesser price from the other competitors in the market or maybe because of any other reasons the sales may declined. Earlier for example they were manufacture 1000 units selling 900 units. It may possible that because of any external factors sales have declined to say 600 units.

So it means that now in the warehouse there will be on an average 400, 350, 400 units all the times every month they are added to the inventory and that was slowly and steadily the inventory

of the firm is mounting. So, that in that situation the firm may think of that not for always not for the long-term normally the credit policy of the; for firm will remain as it is at it has been in the past. But since currently because the market is no not favourable situation is not favourable and have our sales have been negative effect by some external factors which are temporarily done at which are temporary these factors are temporary nature.

This not going to stay forever permanently in the market there only short firm that temporary and nature but they are there if they are there and sales have been badly hurt or negative hit so for the time being firms may think of relaxing its credit policy. If the firm has to relax as credit policy then the firm can evaluate that if he is relax the credit policy we will make some additional sales the market currently we are selling for 600 units we can think of selling say again 900 or 950 or 1000 units in the market.

So it means that what will be the outcome number 1 our inventory will be under control so we will have not to sell out extra funds are extra expenses to manage that inventory that is one part. Second thing is that say market situation will improve for the firm and they will be able to sell as much as their producing. So it means they are not big gap between the production and sales and inventory will also be under control.

So, it means just to handle the temporary change in the market on in the market situation sometimes the firms announces the changes in the credit policy which can be both long term also and short term also and so we will have to evaluate those changes and we will have to see that it firms changes its credit policy in the short time what will happen and if all changes with credit policy in the long time what will happen.

So, whether the firm should change its credit policy or not changes its credit policy that will be a very important point to be discussed and if it has to be changed then what points to be borne in mind and if it has not to be changed why you should not have to be changed and what are the important consideration while changing it for the short time. And what are the important considerations by changing it for the long time.

So, that they will have to discuss and learn about any changes in the credit policy of the firm maybe it is a short time maybe it is a long time all those changes will have to measure and try to see the effect of those changes of the credit policies right. So, not in this class but in the next

class with the help of a small illustration we would like to learn that if the firm has to evaluate the credit policy what is the process available what is the model available.

And how we can do that and what are the important factors to be taken into account for sale changing the credit policy first we will learn about changing the credit policy for the short time and then we will move to the next part learning the change in the credit policy of the firm for the long time. So, today I will stop here and whatever the remaining discussion regarding the change in the credit policy by the firm that we will take up in the next class, thank you very much.