Working Capital Management
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Lecture-40
Credit Policy Changes-III

Welcome students in the previous class you were discussing the long term credit policy valuation and if company relaxes the long term credit policy then what kind of the analysis is required. So, we saw that we will have to use the incremental analysis of the marginal analysis and under the marginal analysis on under the incremental analysis we have to see that how much incremental profit is available by say relaxing the credit policy.

And we have seen that when credit policy is relaxed by 30 more days from 60 days to 90 days the sales level is expected to go up from 1000 crore to 1375 crore.

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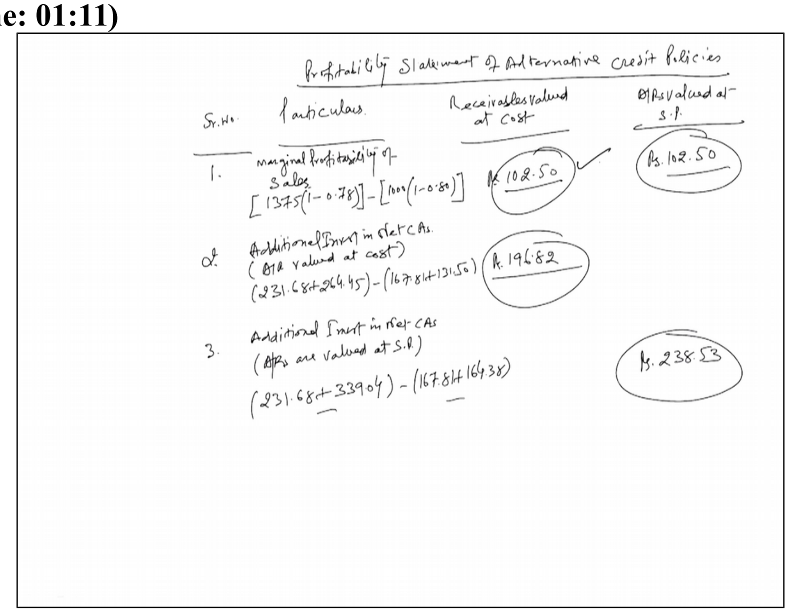

So, the profit assumed here is that is 102.5 and both the levels that is true value the receivables at cost of value the receivables at selling price profitable remain the same that is 102.5. And now we have to talk about the investment part that how much investment is required to be made to earn this profit of this incremental profit and to increase the sales. So, additional investment required in the net current assets that is both in the receivables as well as in the other current assets.

So, we have found out that the new level of investment will be this much that is the 231.38 + 264.45 - 167 that is existing level here this level is existing level of investment. So, this is the level of investment we were making in the existing level of investment was that is in the 167.81 is in the; your current assets.

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Credit Policy Changes – Long-term

Present market size of the industry in which Ghama Ltd. operates is Rs 5000 crore which is growing @ 10 percent p.a. Ghama Ltd. has 20 per cent market share which works out to be Rs 1000 crore. Its desire is to increase market share by 5 per cent. As a part of various strategy formulations, the company is also considering an alternative receivables policy. Marketing department is of the view that it can achieve 25 per cent target if its credit policy is relaxed. But as a consequence of it, the average collection period is likely to increase from 60 days at present to 90 days. Further, the company believes that relaxation of credit policy would not have any major impact on its existing customers both in respect of collection efforts and bad debt losses. Cost of collection department is Rs 5 crore which is likely to be increased by 20 percent due to increase in sales. Relaxation of credit policy may cause increase in the bad debt losses to rise for new customers. Overall impact is expected to be 1.30 per cent as against present level of 1 per cent. Cost of sales will come down to 78 per cent due to economies of increasing scale from present level of 80 per cent of sales. Investment in the current assets other than receivables is expected to go up to 318.99 crore from present level of Rs 231.05 crore. Funds available from current liabilities will also increase up to Rs 87.31 crore from the present level of Rs 63.24 crore. Physical carrying cost of inventories is 0.5 per cent p.a. and opportunity cost of capital is 20 per cent p.a. Advise the company about the changes in the credit policy proposed to be made.

Which was there in the; we have seen in this problem that what was the level of current assets that we have calculated this investment is by say which is given to us in the in the problems sheet. So, that investment was that is the current assets here that is 318 we were expecting that investment in the current assets other than receivables was expected to go up by to 318.99 crore and the present level of 231.05 crore right.

And in this case is funds available from the current liabilities will also be; will also increase up to rupees 87.31 crore from the present level of 63.24 crores right. So, now we have to calculate the how much is the new level 318.99 and how much will be available from the current liabilities that is it 87.31 so what we are doing his new level of investment you are working out is 318.99 -87.31 so that amount works out as we have calculated 231.68 crores this is the one that is 318 the level of investment which will be like say 318.99.

And this much is required 87.31 will be available from the current liabilities, so how much is required to be invested from the pocket that amount is required to invest from the pocket to the companies 231.68 that is in the current assets other than receivables.

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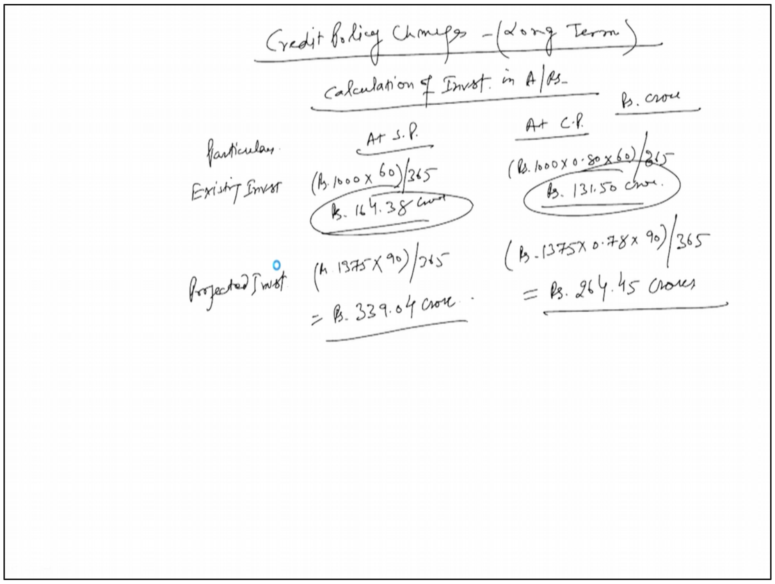

And in case of receivables we have worked out the investment in the receivables new investment in the receivables that is the cost price that is the 264.45.

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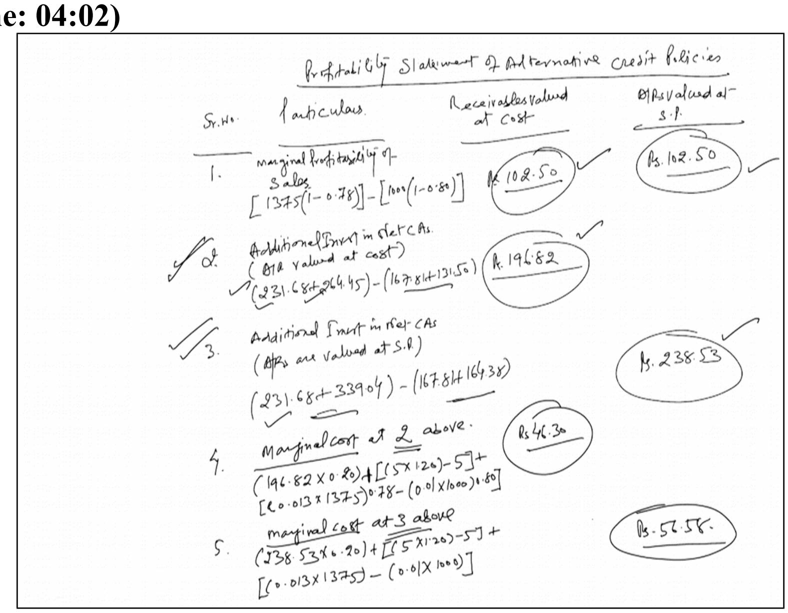

So, we have seen here that total investment new investment required would be 231.68 + 264.45 that is the new investment in all the current asset net current assets and existing level of investment was that is 167.81. Now how we have calculated this 167.81 that has been calculated from this one that is the total amount here we have is that the level of current asset was previously before relaxing the policy was 231.05 crores out of that 63.24 will come from the crores coming from the current liabilities that is from the spontaneous finance.

So it means the investment requirement though so 231.05 - 63.24 was say so the net investment requirement was that is the here is 167.81 that is in the current assets other than receivables and receivables investment that we have already calculated that is 131.50 crore. So, both the investments made total investment is that is 167.81 + 131.5 so it means totally investment which is a new investment required in case of the relaxation of the policy is that is 231.68 + 264.45, 231.68 is the investment in the current assets other than receivables.

And 264.45 is the investment required in the receivables so total investment in the current new investment will be this plus this and then the existing investment in the net current assets was 167.81+ 131.5 so additional investment required is when the receivables are valued at cost is were 196.82 crores. Similarly additional investment required in net current assets when the receivables are valued at the selling price. So, see here the investment in the other current assets other than the account receivables will remain the same.

Earlier cost also was 231.68 here is also 231.68 so there is no change in the investment in the net current assets other than receivables. However there is a change in the investment in the accounts receivables say at that the selling price. So, we have seen we have calculated the investment in receivables at the selling price we have seen that the new investment requirement will be 339.04 crores and existing was 164.38 crores.

So, we have taken here that is 213.68 same in the other current asset at both the levels whether you value the receivables at the cost of the selling price only the investment in receivables changing because we are changing the measurement parameters that is one is in cost terms and another in the selling price terms. For total investment when the receivables are valued at selling price total investment is becoming new investment that is becoming 231.68 + 339.04 and existing investment is that is one is common in the other current assets it is common that is 167.81 is common that was existing.

And the new one will be as per the selling price investment is that is one is common in the other current assets it is common that is 167.81 is common that was existing and the new one will be as per the selling price then new one we have worked out is that is the 160 how much we have worked out here is 164.38. So, that is when the receivables are valued at the selling price that is the existing investment 164.38 this is in the receivables and this investment is in the other current assets.

So, this total is this and these total is this so this minus this will become 238.53 crores this is 238.53 crores is the investment so we have worked out now the profits at both the levels marginal profit has both the levels and the values receivables are valued at cost and receivables are valued at selling price and then the additional investment at both the levels and when the receivables at cost which is the additional investment here and then the receivables are valued at selling price this is the additional investment of 238.53 crores.

Now we will have to calculate the cost of that these two levels cost at this level and the cost of receivables means total cost of investment bad debt losses and the collection cost at 2 and 3 when the investment is this 196.82 then what is the total cost and when the investment is 238.53 crores what is the total cost now we will have to calculate that cost right. So, for calculating that cost we take it as number 4.

So, marginal cost at 2 this is 2 so we are going to calculate the marginal cost at 2 now 2 above we can say marginal cost at 2 about point number 2 about so what is the marginal cost if you calculate the marginal cost how much investment we are going to make here that investment is safe 196.82 crores and what is the your opportunity cost is how much that is 20%.

So it means this is the cost of capital that is 0.20 is the cost of capital this is the one plus then collection cost was something like here we have given here the collection cost somewhere here it is given as the collection cost where that is 5 crore cost of collection department is 5 crore which is likely to be increased by 20% due to increase in the sales. So, it means now we will have to calculate add the collection cost.

First is investment cost it is 20% of the investment and then we will have to add the cost that is the collection cost and collection cost is how much 5 into how much is going to increase by 20% that is multiply 1.2 this is 1 and then it is -5 that was existing so this is the collection cost, cost of the collection department and then plus we will have to add something here and that something here we are going to add is that is the bad debts cost.

By that cost is what is this 0.013 that is 3 % 1.3% will be 1.3% of which amount 1375 and at cost we are taking so we will have to multiply by the new cost that is 78% minus here 0.01 existing was 0.01 of what that is of 1000 old level of sales and the cost was 80% right. The cost was 80% so this is going to be the total cost first we have taken the first component that is the cost of investment that is at the rate of 20% because why we have taken 20% here because that is clearly given that physical carrying cost of the inventory 0.5% per annum and the opportunity cost of capital is 20 % so we have taken the 20% here so how much investment we are going to make money value in the receivable that caused by 96.82.

So, 20% of that is the first component of the cost second component of the cost is that is the collection cost so collection cost will increase from the 5 crore to by 20% so we have taken that 5 into 1.2 – 5, so that cost will be automatically added plus the cost of bad debts that level was 1% what was the level of bad debts here level is 1% overall impact is expected to be relaxation of the credit policy may cause increased in the bad debt to rise for the new customers.

Overall impact is expected to be 1.3% as a against present level of 1% so it means the bad debts are also going to increase from the 1% to 1.3% and 1.3% is of what 1375 crores but at the cost we are taking so it means we have to multiply by cost and then the existing level was 1% of the old level of sales that is 1000. But we have taken the cost and cost was 80% at that time. So, we are multiplied by the 80%.

So if you calculate the cost in this case here this works out as how much rupees 46 point This is 46.30 this is 46 point if you take this will come out as 46 point this is rupees cost is rupees 46.30 this is a cost here. Similarly we have to work out the cost at Number 3 at this also when the value receivables are valued at selling price right. Here so marginal cost at 3 above right. Marginal cost 3 above will be how much we will have to again calculate like this.

So, how much investment we are making now when the receivables are valued at selling price we are going to invest 238.53 and what is the cost of capital that is again 20% so again multiply by 20% and another is going to be something like the bad debt cost of collection, so cost of connection is how much 5 into 1.2 again and -5 which was existing so it will become increased by 20% right so -5 and then you are going to add here the bad debt losses.

So, bad debt losses will be how much 0.013 that is1.3% of what about 1375 and minus existing level is how much 1% of what that is of 1000. So, this is going to be the bad debt losses which we also have two factors out. When we are calculating the cost here marginal cost means so we have to factor 3 things here first thing here factoring is that is the investment cost of investment that we are making in the increase level of the total current assets and receivables are valued at cost as well as selling price.

Second factor is for the collection cost because it cost of the collection department is going to rise by 20% so we have two factor for that increase cost is rising because we are going to have the additional sales on credit as well. So, we have to have extra expenses for monitoring the credit sales. And then we have another component of the cost and that and the main component of the cost is that your bad debt losses.

So, we have two factor for that also so it means that will be 1.3% of new sales level as compared to the 1% of the old sales level that was 1000 crores. So, if you calculate this cost this cost comes out at then the value of receivables are valued at selling price this is something like rupees 56.58 cross so these are the two cost. So, all the three information's are available with us.

How much is a marginal profit 102.5 agreed how much is the additional investment when the receivables are valued at cost 196.82 how much is additional investment by the receivable was valued selling price 238.53 right and how much is the additional cost of maintaining the additional current assets including accounts receivables so marginal cost increasing the cost will be when the receivables are valued at cost that is 46.3 this is 46.3 and in the second case this costume 56.58.

Now the time of making analysis whether we should relax the credit policy or not for example if you go by the information given here in this case that company want to increase resources level from 20% to 25% existing market size in which of the industry in which regions company operates Ghama Limited operates is 5000 crore and market is growing at the rate of 10%. So, companies Ghama's market share is 20% and they want to make it 25%. So, it means currently they are selling for 1000 crore worth of goods in the market.

And if they want to have 25% market share of the rising market then it will become 1375 crores so it means to have the sales of 1375 crore they have to relax our credit policy and if they relax the credit policy so two three things are important they have to do that one thing is that is the credit period they have to increase from 90 days 60 days to 90 days and his they do so then the collection cost the collection department sales collection department credit sales collection department will rise from the 5 crore existing to by 20% right.

And then another component of the cost will be the bad debt losses which are currently 1% of the existing level of sales of 1000 that will become 1.3% of the new level of 1375. So, that will be another change and then you are relaxing the policy and increasing the investment in accounts receivable at the same time the investment in the other current assets and also increase that is in the inventory all kind of inventory that in the advance deposits and then in the cash.

So, all the current assets investment will also increase and we have seen here that existing level of the current assets is other than the receivables is 231.05 crores which will become 318.99 crore out of 318.99 crores 87.31 crore will be available from the spontaneous finance. So, it means only we have to find out the investment for the difference that is 1318.99 - 87.31 and in the existing level also we were having the investment only 231.05 - 63.24 crore so that much investment was made by the company.

And out of the new level of investment which will be required from the company's resources would be 318.99 - 87.31 crore remaining amount will come from the spontaneous finance. So, if you; and the cost of capital is 20% so if you considered the all the situation of the situation and all these changes which are expected to take place because of the credit policy changes long term credit policy changes then we have to make this detailed analysis.

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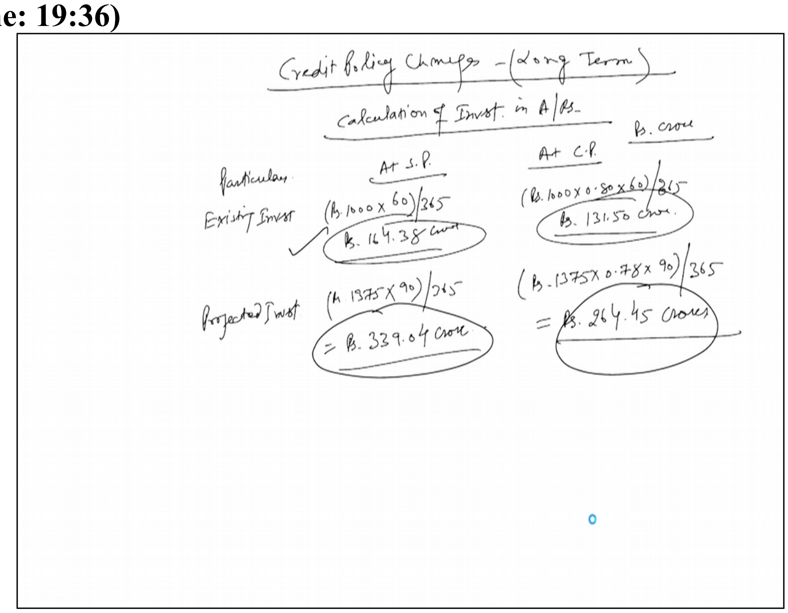

And when we analyse the whole situation we found out that how much investment is required to be made in the accounts receivables at the cost and selling price that additional investment that was required to be made and then saw that total investment will be also going up with that is a investment in accounts receivables as well as investment in the other current assets. So, we can apply the concept of incremental analysis will be calculated three things one thing goes calculated marginal profitability at two levels.

And receivables are valued at cost and selling price which was found out to be 102.50 crores and then be found out the additional investment that is at the cost when the receivables are valued at cost it was 196.82 our valued at selling price it was 238.53 and the marginal cost when we calculated which was sum of 3 investment cost then the bad debt losses and the cost of collection. So, when the receivable was valued at cost the total cost workout has 46.30 crores.

And then the receivable were valued at selling price total cost containing these three components that is an investment cost, collection cost and say bad debt losses that worked as 56.58 crores. So now all the things are available with us now we have to make the final decision. And final decision if you have to make, how the final decision compare the marginal profitability with the marginal cost marginal profitability at both the level is 102.50 crores.

Whereas marginal cost and when the receivables are valued at cost marginal cost is 46.30 crores so the marginal profitability sufficiently higher than the marginal cost so it means the decision is yes we can relax the credit policy because difference in the past and the profitability is very, very significant. Second case if you look at this is the marginal profitability and the marginal cost when the receivables are valued at selling price.

Again here in this case also there is a sufficient difference between the marginal profitability and the marginal cost which is 56.58 margin profitability is almost you can say double of the marginal cost which is 102.50 crore. So, I think in this case also the answer is yes so in both the cases whether we value the receivables at cost or we value the receivables and selling price for the sake of working out the investment in the accounts receivables additional investment in the accounts receivables plus additional investment in all the other current asset then the receivables.

So, in both the cases we have seen that ultimately the purpose is says that we should be able to recover the opportunity cost of capital and second thing is the profitability should be so much which covers the all the cost associated to the increased sales that is a investment cost then is the collection cost and third one is bad debt losses and sum total of these 3 cost in both the cases is much less as compared to the marginal profitability available from the increase the sales.

Because for as a result of the relax credit policy so the decision is yes the firm must relaxes credit policy that even by paying the increase collection cost and even by say increasing expecting then increase in the bad debt losses final net profit marginal profitability is much, much higher as compared to the marginal cost. So, there is no loss in say relaxing the credit policy apart from the marginal profitability which is much more than the marginal cost from this going to have multifarious advantages.

Firm is going to increase its market share increase presence in the market. So, it means that competitive position will strengthen in the market existence distance of the market and as they increased at strengthed position in the market of Ghama Limited their competitors may feel threatened. So, they may think of shifting to other markets so it will create their own existence that edumoney in the market.

Their presence in the market and as a result of that increased market increased sales increased profitability overall net result in the win-win situation for the Ghama limited so the firm must relax its credit policy not on the short term basis not for once or twice but on the long term basis. They can review the policy after say one here or maybe one or two years down the line. But currently this policy needs to be relaxed and increased sales must be achieved by the company and the company must say improvement in the market.

So, this is how we evaluate the credit policy relaxation may short term or relaxation long term relaxation and in the previous class we have seen the relaxation for the short-term purpose and now we have seen that the result of the long-term relaxation of the credit policy, credit policy change that is on the long term basis and how that analysis has to be done.

For evaluating the short-term change we have the clear cut model so that model is also factor all these cost there also in that model we have also affected all these three cost which are affected here so there we have calculated the marginal profitability from this model.

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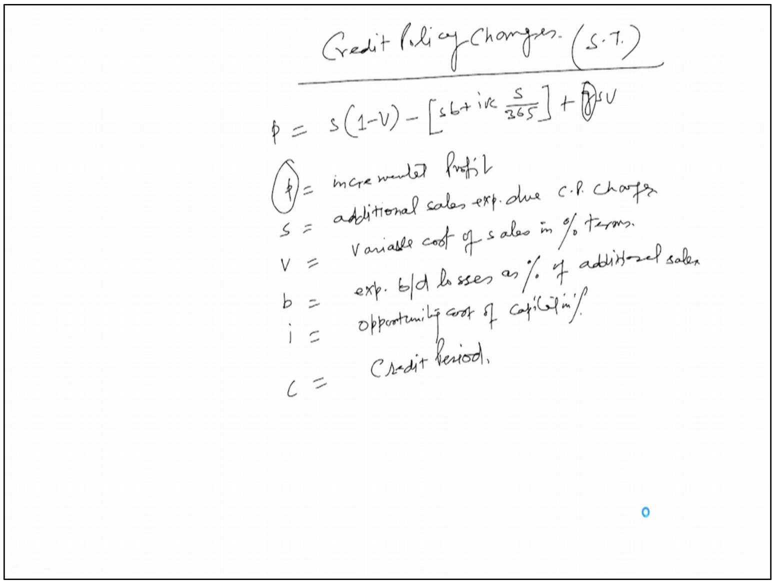

Say for example we have to calculate marginal profitability and then we have marginal profitability and then we have seen the increased cost but they only have calculated the have taken into account the variable cost only. We have not take into account the total cost so we have factored the variable cost and we have factored the collection cost then we have factored the credit period and the bad debt losses.

So, everything we have factored there also in the same manner be effected here also in the same manner and finally we have learnt that how to evaluate the credit policy changes by the forms maybe they are the short-term changes or maybe they are the long-term changes form must evaluate these and time to time they must keep on review in their credit policies and taking the decision because without selling on credit in the market is not possible to sell everything on cash.

So, if you want to have your increased and large presence in the market the firms must think of selling on the credit in the market and only thing is that the ultimate purpose is the marginal profitability should we higher as compared to the marginal cost so how to evaluate that in the short term relaxation and how to evaluate that in the long-term relaxation. We have learnt that with the help of the model standard model we can evaluate the short term changes and with the help of incremental for marginal analysis we can evaluate the long-term changes.

And finally we can decide that whether to relax the credit policy or not every time we have to compare the marginal profitability be the marginal cost. So, here I will stop discussion on the say credit policy of the changes both short term and the long-term and from this now will move to the next part that next part is the deciding the optimum credit formation by the firm deciding the optimum credit policy by the firm.

So, ultimately as we see that credit policy should be relaxed firms must sell on the credit no doubt about that. The discussion so far we had about the accounts receivables we have seen that in every companies balance sheet receivables will be there they are important current asset without this current asset no firm can exist no form can sustain. If you think of manufacturing and selling everything on is not possible so we will have to have both type of the sales cash is also and the credit sales also right.

But the question is that the investment accounts receivables again here should be optimum investment which is manageable investment which is controlable investment if you make investment in the accounts receivables beyond the limit unaccountable which is unmanageable which is unforeseen then what will happen most of the says will become the bad debts and ultimately the marginal profit from those increased sales will be much less as compared to the marginal loss because of the bad debts as well as the cost marginal cost that is because of the collection cost.

So, there is no point selling that way in the market but you cannot say that we will not sell on credit we have to sell on credit in the market we have to give the credit of the market because it is a two way traffic one thing is manufacturing firm is expecting credit from the suppliers along the productive distributive pipe line system. On the one side we have the accounts payable see it means when the accounts payable appearing in the balance sheet when we are buying the raw material we are receiving the credit from the suppliers.

When the suppliers are giving the credit to the manufacturer why not the final user or channels of distribution of finished products can expect the credit from the manufacturer. So, only thing is that some excellent manufacturers are the manufacturers of the excellent highly competitive products makeup the lesser credit where credit policy maybe tight or their credit policy maybe stringent. But no credit is very difficult to imagine in today's competitive scenario.

So, question arises if you have to sell on the credit how much credit we have to give ultimate again I would say emphasize up on that the level of all the current assets or investment must be optimum either too low nor too high because if it is very low profitability will be compromised and if it is too high in the profitability best because in case of the inventor of obsolesce should be very high wear and tear risk will be very high.

And in case of the receivables cost risk collection cost risk and bad debt losses risk is also very high. We have to be very, very careful sell on the credit but at the optimum level. So, now the question arises which is a million dollar question how to decide that say optimum level of investment in the account receivables and what should be our optimum credit policy that optimum credit policy how to have it, we have, we will have the entire discussion total discussion on having the optimum credit policy in the next class thank you very much.