Working Capital Management
Dr. Anil K. Sharma
Department of Management Studies
Indian Institute of Technology-Roorkee

Lecture-41
Optimum credit policy

Welcome students, so we were talking about the optimum credit policy in the previous class we just started talking about the optimum credit policy and I have decided upon that every firm must have the credit system selling their product of the credit in the market but that investment must be optimum neither too less or neither too high. So, that it remains manageable, it controllable and it remains profitable for the firm, so, now here a million dollar question is how to decide the optimum credit policy right.

So, for deciding the optimum credit policy first of all what is the optimum credit policy? Optimum credit policy is the one which maximize the firms value or which contributes in the maximization of value of firms value is the optimum credit policy we have seen in the credit policy changes analysis that when we were say thinking of selling the credit policy changing the credit policy.

Every time we saw whether it is short time or a long time change that the marginal profitability must outweigh the marginal cost. So, if that happens then certainly receivables credit sales will be profitable one and they will be contributing in the maximisation of the firm's value. Now we can use here again the analysis which we have been talking for the quite some time that is the incremental analysis. The incremental analysis can also be used say while deciding the optimum credit policy analysis.

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OPTIMUM CREIT POLICY

'A POLICY WHICH MAXIMISES FIRM'S VALUE'

"Incremental rate of return on an investment is equal to or greater than incremental cost of funds used to finance the investment"

$$\text{I.R.O.R.} = \frac{\text{Incremental Operating Profit}}{\text{Incremental Investment in Receivables}}$$

And under the incremental credit analysis we have to calculate the incremental rate of return on investment that is equal to or greater than the incremental cost of funds used to finance the investment that ultimate incremental rate of return of an investment should be equal to or greater than the cost of funds use to finance the investment at least there is no profit this should not be loss. So, we should be able to recover the cost of the investment means that is a total cost including the investment cost the bad debt losses as well as the collection cost.

Even if you are able to recover the cost and the profit is equal to that cost still we can think of selling on the credit because that way immediate profitability is not there aftermath effects are there and as same by products of the selling on credit though the profitability is not there but the by-products are so high so many that increase presence in the market increase market share automatically deliver the value and everything will be contributing in the value maximization of the firm.

So, here what we have to do is we have to use the concept of elemental analysis that if we are selling on the credit already and he want to expand the credit then how much additional want to make how much is the increment the rate of return available how much is it cost of selling more on the credit as compared to the current level and then finally we will arrive at a decisions, it maybe situation that we are not at all selling on the credit right now.

We are selling everything on cash but we are thinking of selling on the credit. So, if you want to start the credit sales we have to take the help of the incremental analysis and there we have to calculate the IROR incremental rate of return. Incremental rate of return we must calculate that

will be calculated with the help of two things one thing is incremental operating profit which is here and second thing is the incremental investment in the receivables.

How much incremental investment is required and after considering the total cost of the increased credit sales how much is the incremental operating profit is there so we will have to calculate IROR that is an incremental rate of return right. Once that is calculated means we have to do 4 thing is first thing is that incremental estimation of the incremental profit. How much incremental profit is there?

Second thing is estimation of the incremental investment in the receivables how much additional investment is required how much additional profit is there and then we have to compare that these two and calculate the incremental rate of return that is that is IROR increment rate of return on investment and then compare the increment return with the required rate of return right.

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EVALUATION OF INVESTMENT IN RECEIVABLES

- ESTIMATION OF INCREMENTAL PROFIT
- ETIMATION OF INCREMENTAL INVESTMENT IN RECEIVABLES
- ESTIMATION OF INCREMENTAL RATE OF RETURN ON INVESTMENT
- COMPARISON OF INCREMENTAL RATE OF RETURN WITH REQUIRED RATE OF RETURN

There are the two rates of return what is the rate of return which is available from the say increased sales that is available because of the market situation how much is available that if we are selling on the cash this is the price. If you are selling on the credit we will have to obviously sell on the increased price. So, how was the price we are charging will be determined by the market credit will be determined by the market? Even the bad debt losses will also depend upon the behaviour of the external factors that is a buyer's and channels of distribution.

So, it means the ultimately the available profit available cost or increased cost and that will be say helping us to calculate the incremental rate of return which is available from all this as a

process of the increased sales and then what is our required rate of return right. So, here the important thing is that the required rate of return when you calculate the required rate of return that is the required rate of return.

What is this required rate of return? Some people say that it is should be cost of capital that at least as we have seen in the previous example in case of the long term credit policy change the opportunity cost of capital was how much that is 20% but I say here or maybe some other expert also see that the required rate of return should not be near the cost of capital. But it should be something more and something more means that is the premium for premium for risk that when we are selling on the credit we are taking there is risk also.

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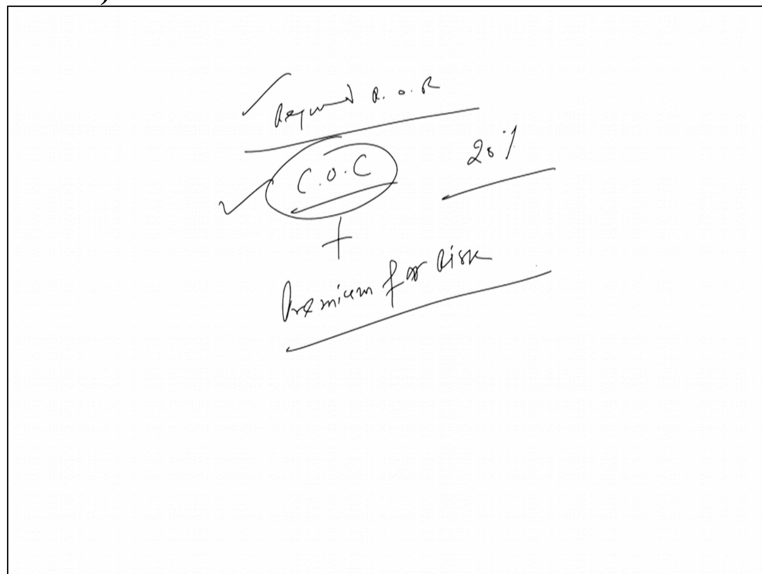

So, if I am only recovering my opportunity cost of capital I am not getting any premium for the risk then why should I take the risk of selling my production on credit then remain under the constant fear whether the sales will be collected or part of the sales will be converted into the bad debts or I will be losing the sales in the market because of the happening of the bad debts so it means if am selling on the credit I am taking the risk also. So, it should not be nearly the cost of capital it should be cost of capital.

Say for example the cost of capital is 20% then some premium should be there for example premium for the risk is 2% so my required rate of return will become 22%. So, in this case when we are comparing comparison of the incremental rate of return with the required rate of return so that incremental rate of return which is available from the business by selling on the credit should be compared with something called as the required rate of return and the required rate of

return should not be only opportunity cost of capital plus some premium for the risk we are going to take.

So, if opportunity cost is 20% premium should be at least 2% that is the reward for risk say for example if we are totally risk averse totally averse we want do not want to take any risk we are zero risk taker so what we do in the above the surplus funds we simply go to bank and deposit those funds in the bank and we take zero risk because we know that in the bank on the safe and we can expect some minimum return on those funds.

And if it is a fixed deposit in today's scenario 6% we are getting minimum and if it is a savings deposit minimum 3% is assured to us and without out any risk right. But if we want to earn more returns then we will have not to invest the funds in bank and have to invest the finance for example people who to stock market people go to the real estate and some other risk taking investment avenues.

So, if people are taking additional risk by going to stock market or by investing the funds in the real estate. So, in that case why they are going out they are looking for the higher rate of return then the bank rate is not taking the increased risk they should be compensated for that by the premium for the increased risk. So, I should not be 6% of the fixed deposit like as a bank rate it should be somewhere 6 + 6 that is 6% for the opportunity savings or they may be the cost of capital which is available from other alternative investments.

And 6 % should be minimum risk the premium for the risk which I am taking by same coming to the stock market, investing in the real estate. Similar is the case here when the firm is investing is surplus funds in the credit sales certainly they should not be compensated for the opportunity cost of capital. Opportunity cost of capital is a safe investment right but in the credit sales they are taking different kind of the risk.

Their say bad debt losses are expected to increase the reflection cost is expected to increase why not the premium for that. So, that premium will have to add to the opportunity cost and then that total will become the cost of capital + the premium risk will become the required rate of return and that required of rate of return should be compared with the incremental rate of return with that additional investment incremental investment in the receivables.

And the profit available out of it that becomes incremental rate of return IROR should be compared with the RROR so that if IROR = RROR the decision making parameter should be that if IROR is equal to the required rate of return then we can say yes. But if incremental rate of return is less than the required rate of return we should not invest into that kind of the credits is because that is not an advisable investment right.

Reverse find that increment rate of return is more than the required rate of return and there is a win-win situation for the firm and firm should without thinking twice they should invest into the credit sales and they should create a current asset in the balance sheet which is called as accounts receivables sundry debtors accounts receivables and important current asset after the inventories. So, it means ultimately optimum credit policy demands that firm should be carefully judiciously investing in the credit sales.

So, that ultimately investment is productive that is not a loss making proposition the investment is productive useful and that is increasing the overall firms value and that will happen only if the incremental rate of return which is available from this investment is either equal to the required rate of return or is greater than the I greater than IROR. So, it means deciding the optimum credit policy we should take into consideration two important things incremental profit and the incremental investment.

How to calculate the incremental profit and incremental investment already discussed in the previous class in the say example then be measured the say the credit policy changes will be the short-term same model was used and in case of the long-term also be calculated the marginal profit or the incremental profit and the marginal investment or the incremental investment both cost and the selling price valuation of the receivables.

And then we calculated the cost and then we compare the cost with the say the rate of return the profitability finally we have decided that yes cost is much less than the profitability available. In a way you can say that the increment the rate of return is much higher than the requirement of returns. So, it means we can go for say relaxing the credit policy. Here also in case of deciding the optimum level of current assets same parameters will be used and will be our decision will be based upon that you calculate the incremental profits.

You calculate the incremental investment consequently the incremental cost compare these two then compare the rate of return with the required rate of return and then see that we should I go for investing in the in the say credit sales or and the decision criteria is only one that your IROR should be either equal to or greater than RROR. So, then only the investment can be made and up to that level of the receivables can be created after that level of the credit sales can be created in the firms balance sheet by the firm where the same criteria is matter of to which level the same criteria matter that increment the rate of return is equal to or greater than the required rate of return.

When the movement and the movement comes that when the incremental rate of return decline as compared to the required rate of return there we should stop selling on the credit there is no point selling on the credit is so it is totally useless and is not a advisable proposition right. So, this is how we can decide the optimum credit policy. Now we will take account into the important concept that important concept is Credit Risk Analysis it is very, very important as a student of working capital.

If you are professional manager or maybe if you want to become the professional manager tomorrow and maybe it is possible that you are handling the management of short term funds in the firm in which location to leave you will have to do the credit risk analysis it may be a situation that either you are working in a company who is a borrower in the market or who is a borrower in front of the bank or in front of the supplier or if you may be working with the company tomorrow or you are currently working in a company who is the lender in the market.

And who are other supplier or the lender in the market so in both ways this credit risk analysis important right. Now so credit risk analysis of every manufacturing companies should be done whether that company is borrower then that the lender has to do that analysis and if they are say again borrower then they themselves be doing the analysis for themselves because they know it that when they will go to borrow the funds from the market then certainly lender would ask some questions and those questions will be pertaining to the credit risk analysis.

Because every lender who is going to lend either money or any material as a supplier or as a lender of funds. Both are interested into the safety of their funds so their funds are safe their sales amounts are safe and finally they are going to get their funds back everybody is interested in that.

So, in the capacity of a borrower also in the capacity of a lender also both ways for the finance manager this analysis is important this analysis is useful.

So, what are the important parameters from the say point of view of analysis of this credit risk analysis for the managers who deal in the management of the short term funds or the working capital management right for the analysis is based upon the four important things right.

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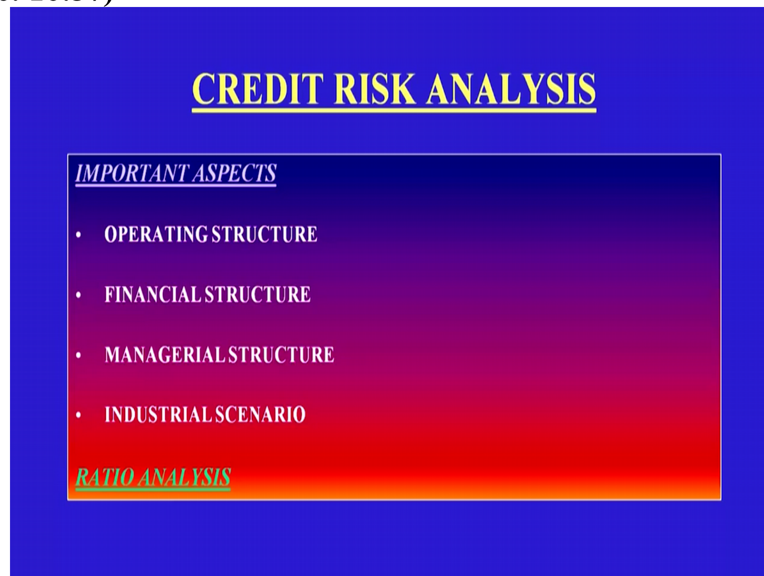

The important aspects of the analysis are operating structure of the firm, financial structure of the firm, managerial the structure of the firm and industrial scenario these are the four important things should be there clearly in the mind of any person whether he is a borrower in the market or he is a lender in the market he should be very clear about these three important for these four important points of the say credit risk analysis.

Now what is the Operating Structure Analysis, under the operating Structure Analysis we can take the help of say for example to analyse the operating structure of the firm the help of the some you can call it as important ratios. Before we go for the analysis I would talk to you about that how to go for the operating structure analysis or maybe the operating management how to analyse the operating management of the firm or operating structure how to analyse operating structure of the firm for that I would have little discussion before we move the different ratios which are important, different ratios to study the operating structure of the firm right.

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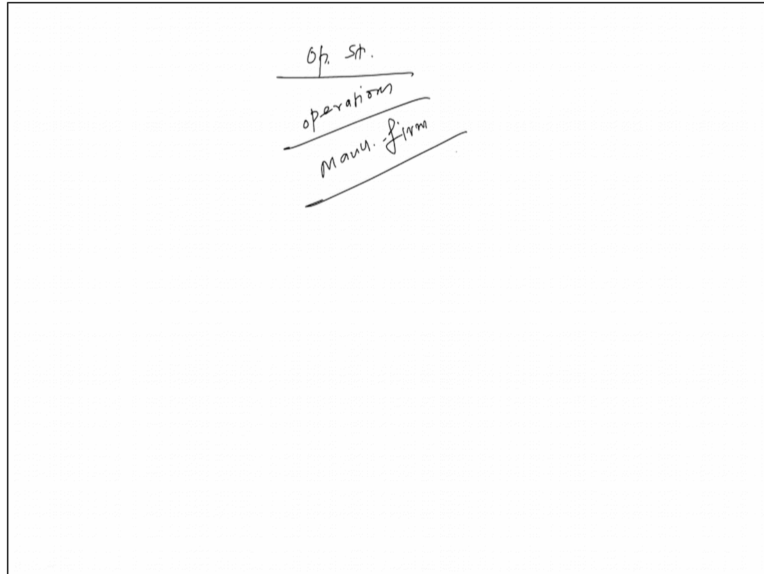

When we talk about the operating structure of the firm right the operating structure of the firm is understandable or can be studied from their operating structure of the firms we talk about the operations right we talked about the operation of the firm and when we are talking with the operations of the firm it means we are talking about the manufacturing firm, a firm which deals with the manufacturing. When we started discussion on this subject in the beginning if you recall I give you certain assumptions that when you talk about the Working Capital Management.

You are talking about a manufacturing company because in the manufacturing company only there is a need for working capital in the services sector organisations there is no need for the working capital as such right. So, if you are talking about the working capital management of the working capital analysis it means we are talking about a manufacturing company. And when you are talking about the manufacturing company then yes we are talking about the operations of that company as far as the operating structure of the firm is concerned right.

So, it means there is a special fundamental golden rule that look if the operating structure of the firm is good is strengthened and strong but the financial structure of the firm is poor there is no need to worry about. Because a strong operating structure will improve the weak financial structure but if reverse happens that a firm has a weak operating structure but strong financial structure then that firm or the investment in that firm is highly risky.

Because of weak operating structure will eat away the strong financial structure and slowly and steadily firm will becomes sick organisation and the strong financial structure will become the weak financial structure their operations are already weak and if the finance is also become weak

ultimately there is no point for the firm to survive to remain into existence firm will closed down soon. So, it means always bear in mind that under the operating structure analysis and the financial structure analysis we are talking about the two analysis operating structure of the firm and the financial structure of the firm.

Under the operating structure analysis we have to see now that operations of this firm must be very, very strong so how you can say measure the operations of the firm operations. Operations of the firm means the operating structure of the firm and the financial structure of the firm can be studied from the profit and loss account or another name of the statement is income statement right.

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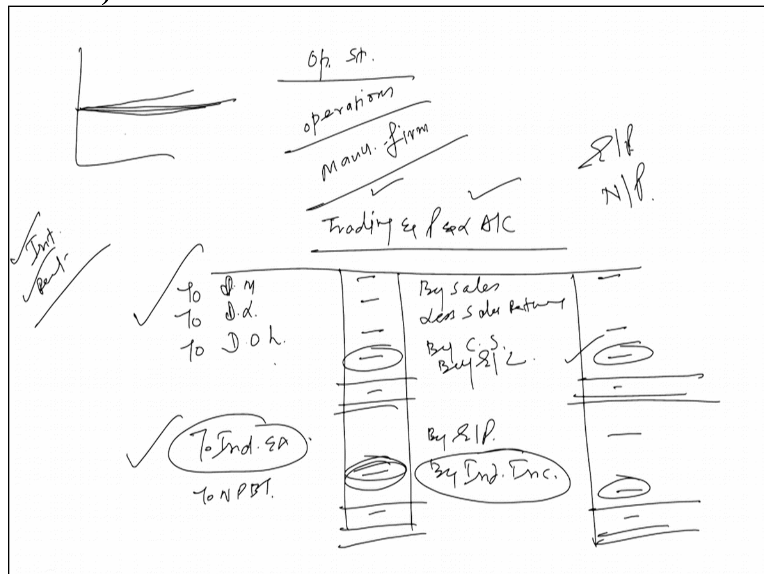

When you prepare the income statement say for example here it is the income statement we have is this statement like this we prepare this statement like this so we call it as trading and profit and loss account trading and profit and loss account right. Trading account is upper part and after that the profit and loss account starts output of the trading account is gross profit GP and output of the profit and loss account is NP that is the net profit right. So, when you prepare the trading account what you take in the debit side?

We take direct materials we take direct labour and we take the other overheads or direct overheads right. We write like this to direct material, to direct labour, to direct overheads and this side what we take by sales, less sales returns and then is the by closing stock. So, total of this we do here we put this total here and we could be total balance both the sides and difference of this man is this site this man is this side is 2 gross profit or it can be by gross loss GL.

So, it is your sales then it is a closing stock or and then it can be gross loss and it is here direct material, direct labour, overheads and it is a gross profit. So, either of the two will be there is a gross profit will be there or gross loss will be there right. So, if you want to see the strength of the firms operating structure you simply look at the trading account because trading account is the account of the operations of the firm. In this account you see what we are taking we are taking only maximum 5 things one is we are taking sales on the credit side and how much we have not been able to sell in the market that is it 6th level that is the closing stock.

So, total output is on the credit side right and total input is on the debit side. So, how much input the firm is made in terms of the material, labour and overheads that is clearly given here. How much output the firm has been able to have that is the sales and the closing stock right. So, then if the sales + closing stock is a bigger this total of these two is bigger than the total input it means a difference is the gross profit right and when you move further you take this gross profit that is by GP here then by indirect incomes all indirect incomes.

And here this side you take to indirect expenses right and then the difference for example again here also we have decide which is bigger it becomes the total here we have to again total it up and then it becomes to net profit before and NPBT that is Net Profit Before Tax. So, this statement is enough largely to understand the operating structure of the firm and the financial structure of the firm.

Trading account is exhibiting the operating structure of steps of the firm and profit and loss account lower part 2nd part of the income statement is exhibiting the financial structure of the firm. If operating structure of the firmer strong I am saying and the financial structures weak for example you have a gross profit here but here while you come down you do not have the net profit before tax but you have say by net loss right.

You have not loss here nothing to worry about firms operating structure as shown by the trading account to strong your financial structure is poor so the say profit and loss account is exhibiting a lost not to worry about you can extend the credit to this firm and your credit is safe or if you want to go to seek the credit from any agency you can explain your case like this that look my operating structure is very, very strong my financial structural currently weak but I am sure that the strong operating structure will help me to improve my weak financial structure.

How the operating structure means how much I am investing as an input my output is so much more than my Input and I am into the gross profit. Because we are a manufacturing concern the firm we are talking about is that firm is the manufacturing concerned it means in a manufacturing concern major source of the profit should be their operations if their earning profit from the operations but because of some very heavy financial structure here the interest cost is very high.

For example we say here that interest cost is very high so, your indirect expenses will go up and in that case if your indirect expenses are increasing furniture structure being very heavy financial structure so here finally we have reported the net loss but we have reported the net loss. But I am sure that this GP will improve over a period of time and I will be able to restructure my finances and I have borrowed the funds in the past from the source which are very, very expensive.

So, because of that my financial structures become very, very heavy but my operating structure is very strong I am earning gross profit from my operations. So, this strengthened operations will help me to restructure by financial structure I will replace my expensive sources of funds with the cheaper sources of funds slowly and steadily. I will manage my financial cost will manage my indirect expenses other indirect expenses also and probably my indirect incomes also improve so my financial structure will also improve.

So, the lender also be looked at and would take a decision that he has their major source of revenue should be the operations and this firms operations are strong because trading account is exhibiting a very, very strong picture because they have the gross profit. Coming to the lower for it has become a net loss of example it is not net loss let us assume hear that it is not the net loss. But say it is the net profit to net profit before tax but it is a very insignificant about this amount is not very significant insignificant amount.

So you should not get scared that our net profit before tax is very, very low solve financial structure is poor so I think people will not lend no that is not the case people should look at the manufacturing concerns trading account and the operating structure because major source of their revenue and profitability is the operations. So, because in that case say we are not a finance company, so, our major source of the profits should be from the operations since gross profit is high so I am sure that my low net profit or the net loss.

I will be able to convert from net profit significant high net profit so there is nothing to worry about it and if the reverse is the case for example here you have the not the gross profit but you have the gross loss for example you have a no gross profit here you have the gross loss right. But somehow while coming down here we have not hear the net loss but the net profit before tax. We have now say net profit before tax so it means you look at in this case.

Despite having the gross loss from operations the firm is reporting net profit before tax. It means from where the net profit has come this net profit will come from source that is indirect income. And indirect incomes come from where say if you have surplus funds have invested those in the market so interest on the investment this is a one. Second for example the firm during their good days they have constructed the buildings and those buildings are rented out today.

So, it means that rent is coming as a income but you see interest income rent income this firm is the manufacturing concern this firm is not finance company so the so that the interest income should be considered as a income from operation. So, this company is a manufacturing concern so interest income is today tomorrow it will not be because this gross loss will slowly and steadily believe this investment also and this investment will also go down in the drain.

We are not a real estate come that we have construction the building rent them out and major source of our income is the rent from the buildings. We are a manufacturing company and major source of the profit and the revenue and the profit should be the manufacturing operations. So, if this is the case that in the upper part in the trading account the firm is reporting lost in the lower part the firm is reporting the profit in that case it is very, very dangerous situation.

But the reverse is there that in the upper part is a gross profit in the lower part there is a lesser profit or net loss nothing to worry about is very good situation because operating structure of the firm is strong and strong operating structure will improve the weak financial structure also and the firm has a bright future. Second thing is another important thing is that this gross profit we have to check how much gross profit has to be there. Gross profit has to be there for example you talk about that if you compare these two sides. These two sides are say we have sales on the one side and we have the expenses inputs on the other side.

And both the sides whether you talk about the output you talk about the input both are variable in nature. So, if your expenses increase your cost of material labour and overheads increase you

should be able to recover that from the market by increasing your selling price right and then partly through the closing stock also which will go to the market tomorrow. So, in that case all the 5 items being variable either the GP should be depicting a rising trend like this or not raising or at least it should be having a sustain like this.

GP should not have a trend like this Gross Profit should be there and gross profit is either rising or remaining stable. You should not be depicting declining trend and if it is stable or depicting a rising trend it means with the passage of time firm is improving, is improving its operations, operations are very strong so strong operating structure will improve the weak financial structure for example here gross profit is there for the gross profit over the years.

If you make the analysis of surpass 3, 4, 5 or 10 years and we see that the gross profit is declining over the years then again it is very serious case to be taken care of that here there their operating structures getting weak and how it will affect the financial structure have already discussed with you. So, sure about the operating structure of the firm and the furniture section of the firm we have discussed something till now and will have to continue this discussion for the remote to arrive at through some logical conclusion.

And that further discussion which we will continue and we will have we will have in the next class at the moment I stop here and I will in the next class again I will pick up about the operating and a structure analysis financial structure analysis important ratios which can be used to study the operating structure and financial structure as well as the managerial structure and the industrial scenario of the firm. All this we will discuss in the next class thank you very much.