Financial Management for Managers
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Lecture 04
Fundamentals of Financial Management Part IV

Welcome all, so in the process of learning about the Basics of Financial Management, we were discussing about the investment decisions and in the investment decisions, I told about you that a thorough analysis of the, say proposed investment decision has to be done with regard to the market and demand technical analysis means the input, output analysis, possibility of selling the product in the market, then the cost and benefit analysis everything.

Even including the projected financial statements for the next 10 years minimum. So, that we are sure about, that how many years the product will take to reach at the break-even point and then after that in the next ten years, out of the 10 years periods of time, how many years there will be a profit and how many years will be there be a loss and when the product will reach at the break-even point.

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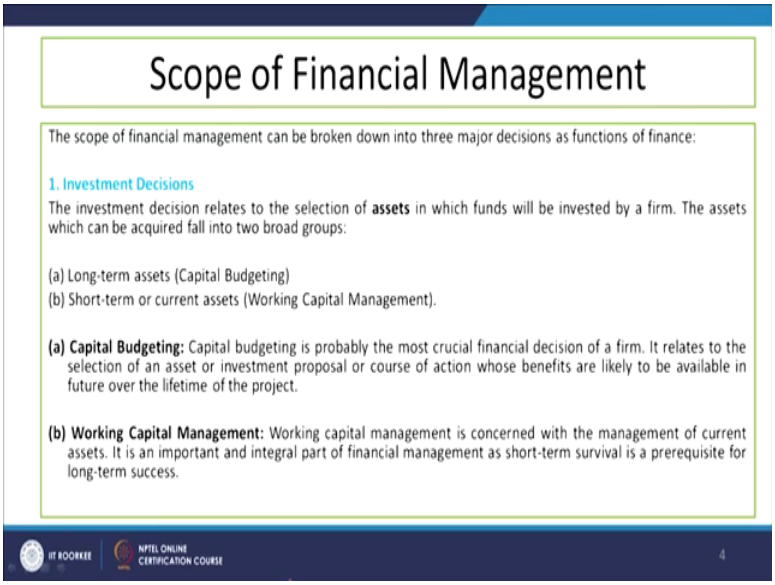

Now in this case the investment decision, when we take it has two broad components, first components is the long term investment related decisions which we call in the short term or in the technical manner the capital budgeting decision and second is the short term or the current asset decisions.

So, long term investment decision and short term investment decision. Both the investments we are required to make, when we think about the long term investment decisions, we call

them as a capital budgeting decisions and when we talk about the short term investment decisions, we call them walking capital decisions.

So, capital budgeting decisions and working capital management decisions both the decisions we have to take. In the previous class, sometime I told you that, to make the proper utilization of the long term investment made into the fixed assets, land, plant, building, machinery, furniture, vehicles, you need sufficient amount of the working capital, short term funds.

Your plant your machinery is of no use, until and unless there is a sufficient amount of the people working on the plant, sufficient amount of the raw material available with us, sufficient amount of the other inputs like power, water, other lubricants, oils, lubs other things.

So, when you are taking the decisions about plant and machinery, land, building, plant and machinery, it is a long term decision, it the capital budgeting related decision. But to make the proper utilization of those long term fixed assets to have the working capital and to have the short term or the current assets like, this material like human resources, like other things you need to make short term investment decisions working capital decisions.

So, how much investment is required as a long term investment, how much investment is required as short term investment, you have to pre assess it in a proper and efficient manner. Then we have to proceed further. So, if your investment decisions says yes, if the answer after the thorough and the detailed analysis, we get the answer that yes, this is the profitable investment, we can make this investment and if we make this investment we are going to attain the ultimate objective of the value maximization of the firm or the wealth maximization of the shareholders.

We are manufacturing four products, if we add up the fifth product in the row in the total say you can call it as the product mix rather than manufacturing 4, now we start manufacturing 5 or 6. We are going to increase the overall sales of the firm, overall profitability of the firm, over on value maximization we are going to attain. Certainly the investment decision is positive and we have analysed it from every angle.

So, once that investment decision is approved by the different stakeholders, like the management of the firm, different consultants, board of directors and finally it got it got approved in the annual general meeting, the final approval of the shareholders is obtained by

the board of directors. It means that investment decision gets the green signal and support of that investment decision is the detailed background analysis.

After this, once this decision has been taken, the next decision we have to take is now the financing decisions. I told you different type of the investments to be made, into the long term assets into the short term assets, capital budgeting and the working capital management both. So, now from where the funds will come?

I told you largely, there are three sources of the finance, one is the long term sources of the funds, short term sources of the funds and third one is a spontaneous finance. Long term sources of the funds have to be used only, or largely for having the long term assets in the firm like land, plant, building machinery.

Short term funds have to be used for the creation of the short term assets, like inventory, credit sales, prepaid expenses, advance deposits and keeping cash. And then is the spontaneous finance. So, when we start making use of it, if you talk about the long term investment decisions only long term sources we should normally make use of. And for the long-term funds you have the different sources, you can go, if it is the adjusting firm we can come out with an IPO.

So, we can have the sufficient equity and we can issue the equity share, we can issue the preference shares. So, by way of equity, we can generate the funds or if you do not want to generate all the funds through equity then partially we can generate the funds through equity, partially through that, by say borrowing funds from the financial institutions or coming out with the bonds issue, debenture issue or simply if we do not want to come out with the bond or debenture you can borrow funds from the financial institutions.

So, you can have a proper mix of debt and equity as far as the long term investment is concerned. For the short term investment you have to start with spontaneous finance and then you are to move towards the short term finance and anyhow if the working capital needs are not fulfilled from spontaneous finance and the short term sources, then only we have to resort to the part of the long term sources.

So, long term investment only from the long term sources, short term investment, working capital investment, first from spontaneous finance, then from the short term sources of the funds and then from the, if still the need is there, part of the long term funds can be used for the short term requirements.

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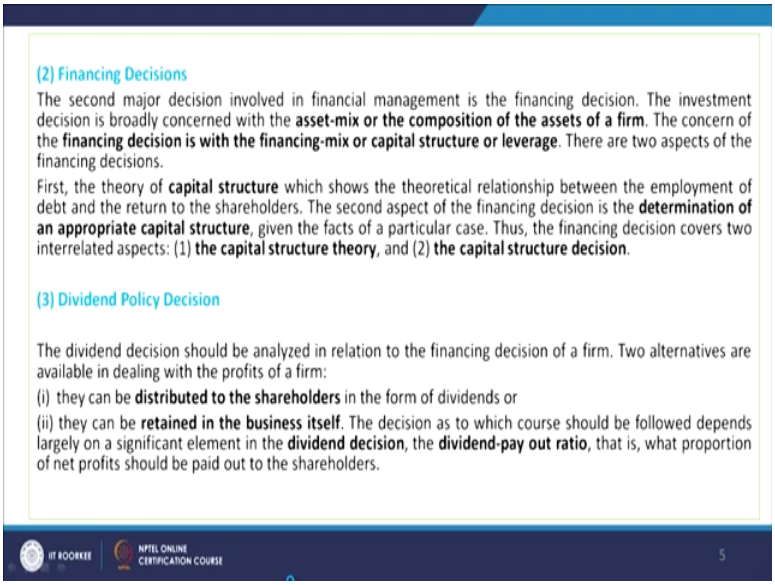

So, what is written here? The second major decision involved in financial management is the financing decision. The investment decision is broadly concerned with the asset mix or the composition of the assets of the firm. How much you want to have the long term assets? How much you want to have the short term assets land, plant, building machinery and then short term asset inventory, credit sales, advance payments, paid amount, cash in hand, cash at bank all these things.

The concern of financing decision is with financing mix or the capital structure or leverage. I told you what is the capital structure? That is a mix of the different sources of the funds, borrowed funds and owned funds borrowed funds means debt, owned funds means equity. There are two aspects of the financing decision, there are two aspects of financing decisions, first the theory of capital structure, which shows the theoretical relationship between the employment of the debt and the return to the shareholders.

Second aspect of financing decision is the determination of the, an appropriate capital structure given the fact of a particular case. Thus, the financing decision covers two interrelated aspects the capital structure theory and the capital structure decision. Capital structure we will discuss in detail at the later stage but capital structure theory what it says there are different theories of the capital structure. We have the net income approach, we have the net operating income approach, we have the Modigliani Miller approach.

We have number of other theories of capital structure. So, first we will learn about those theories, but in literature all these theories talk about or suggest, the firms to have the capital structure like and in the practical sense how the capital structure of the firm has to be decided.

Because the major difference in the debt and equity is, people say debt become means comes up as a cheaper source of finance as against the equity because it is tax deductible, because it is tax deductible, because whatever the cost of the funds you pay as debt means you must understand here that whatever the cost of funds we pay here as debt.

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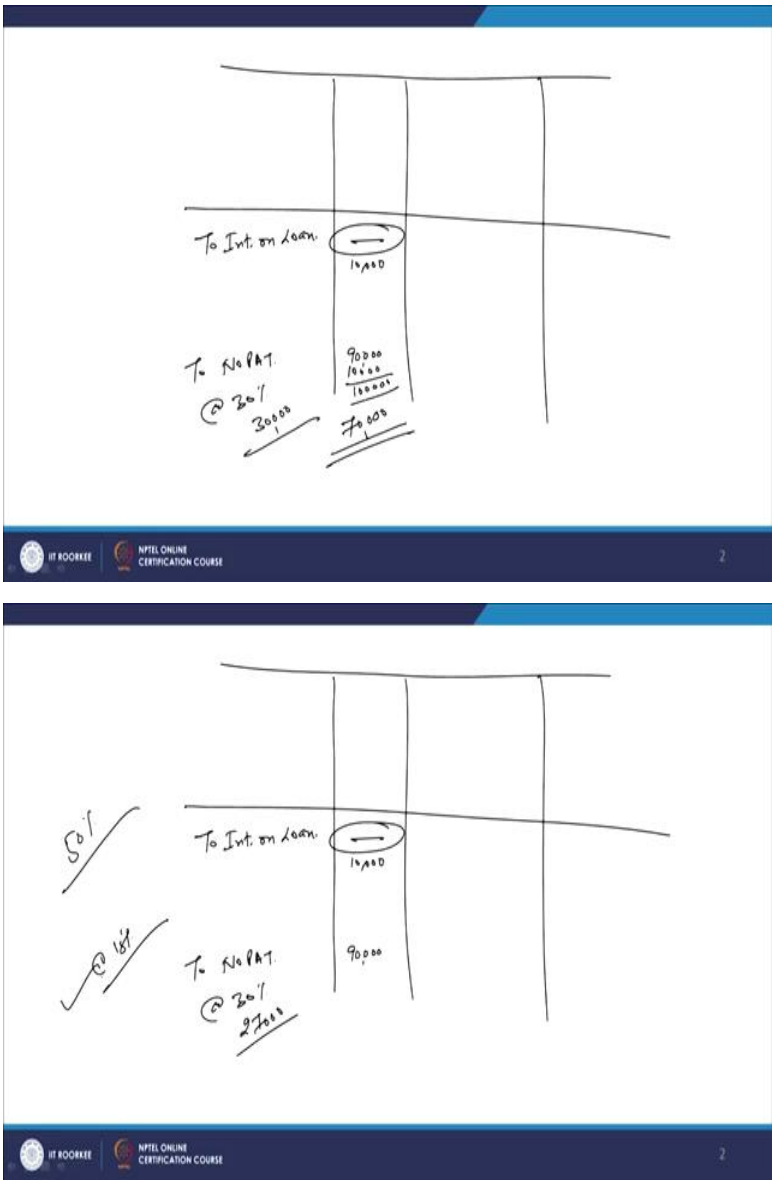

For example, you are preparing here this profit and loss account. So, in this profit and loss account after preparing the trading account, you show one cost is that is called as the interest on loan and when you show this is an expense here. So, when you calculate the two net operating profit after tax, it means this profit will come, for example this interest figure is 10,000 and your profit is 90,000.

So, if this borrowing is not there this interest on the loan will also not be there. So, what will happen this interest will not be paid on that, because entire amount of the fund has come from equity. So, what will happen your this amount will be added in this, it will become 10,000 your profit will become 1 lakh rupees and if the tax rate is at 30 percent.

So, it means your tax will become how much 30,000 rupees. So, it means your profit in your hands will be, that left out profit will be how much rupees 70,000. But, if you paying this interest to the say, the suppliers of the long term funds in the form of the debt, we have borrowed this funds it means 10,000 rupees paid as interest. So, now this profit will now be 1 lakh rupees, but this profit will be something like your 90,000 rupees.

So, it means if it is 90,000 rupees, so at the rate of 30 percent, what will be your tax, component? The tax component will become 27,000 rupees. So, your 3000 rupees saving is there if you are boring the funds paying the cost of the funds as interest and that interest is we are showing as the financial cost in the profit and loss account, which is tax deductible.

But the funds, if I have come from the equity then no interest is paid on the equity because on the equity capital, we never pay any interest, we pay only dividend in the event of profitability and that dividend is not the part of the profit and loss account. So, it means that does not appear here that does not come here, it means you have to, your profit will become 1 lakh rupee, you have to pay 30,000 rupees as a tax.

In this case, you have to pay 27,000 rupees as a tax. It means whatever the loan we are paying, means actually this interest on the loan we are paying is actually, we are paying 7000 rupees, because 3000 rupees we are saving as tax. So, people say that, debt comes as a cheaper, say as a cost of funds, it is lesser than the cost of equity. Because of the first feature is that it is tax deductible, equity is not tax deductible and second thing is that the cost of the debt remains fixed.

For example, the rate of interest of that loan is for example 18 percent. So, if the firms profit is for example very high that 50 percent of the investment is a profit of the firm. In that case, if the funds have come in the form of the debt only you have to pay 18 percent as interest that is the cost is fixed, remaining whatever the balance amount is that belongs to the equity shareholders.

So, to the firm the cost of funds is restricted up to 18 percent which we know in advance. But in case of equity, because higher the amount of the profit, higher the amount of, amount will

be of the dividend. So, some time the amount of dividend can go up to 40 percent also, 30 percent also, 35 percent also, 45 percent also. So, the cost of funds it is not known in advance in case of equity. So, in the event of the higher profit, there profit has to be shared with the shareholders. If we not required that profit internally within the firm.

So, cost of the funds goes up, so that does not happen in case of the debt and furthermore the debt is tax deductible, equity is not tax deductible. So, in the capital structure of the firms in the financing decision of the firm. We have to create a proper balanced capital structure. First we have to understand the theories of capital structure therefore deciding the capital structure of a firm but net income approach says, but net operating income approach says what your Modigliani Miller approach says and finally for deciding the capital structure of the firms what finally we have to do what to do, what finally we have to do.

And then once the financing decision is taken two decisions are over. One decision is the investment decision, we clear that yes we will go for this investment because we see that this investment is going to be profitable investment, once that decision is ok taken. Second decision is financing decision, we have decided on certain basis that out of the total investment requirements 80 percent will be equity, only 20 percent will be debt or vice versa or 50 percent will be debt 50 percent will be the equity.

So, we have to take this next decision which is called as the financing decision and largely this decision is also taken by the CFO with the help of the other important functionaries in the organisation in the firm.

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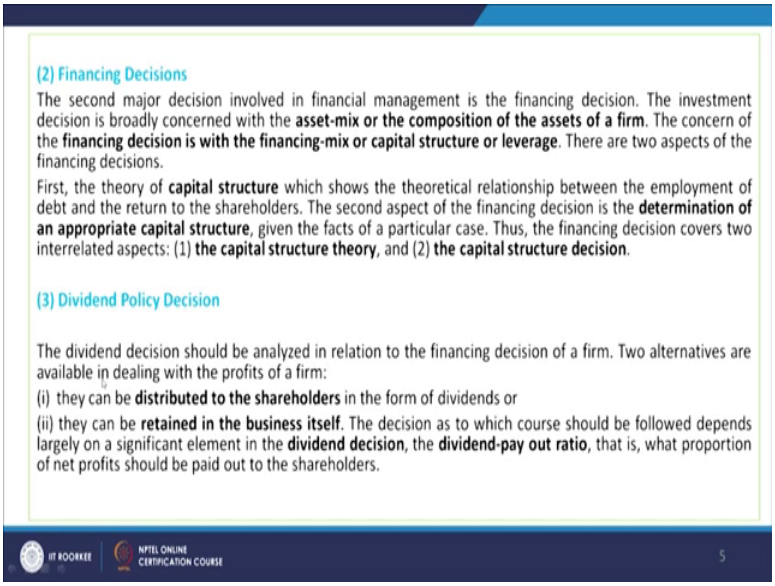

Then we talk about the dividend policy decisions, what should be the dividend policy of the firm, here it is written the dividend decision should analysed in relation to the financing decision of the firm. Two alternatives are available in dealing with the profits of the firm after the profits is earned we have the two alternatives here.

They can be distributed to the shareholders in the form of dividends as I told in the previous class. Second is they can be retained in the business itself the decision has two or decision as to which course should be followed depends largely on the significant element in the dividend decisions.

The dividend pay-out ratio that is what portion of the net profit should be paid out to the shareholders and this dividend policy decision is always taken in the light of investment requirements of the firm. If the internal investment requirements of the firm are high then CFO has to play a very role here, convincing the board of directors, convincing the shareholders in the annual general meeting that let us have a policy, that whatever the profit be earned larger chunk of that profit is reinvested back into the business because the business is on the growth trajectory.

If the business is on the growth path certainly we need more funds rather than going out in search of the funds, why not to reinvest the profit back into the business. So that we can maximize the capitalisation base of the firm, the capital base of the firm, investment base of the firm and very few needs are fulfilled from external sources, larger investment come from the internal sources only and we do not distribute our profits as dividends liberally.

If shareholders permit for this, it means the dividend policy is, now say you can call it as, in is in favour of say reinvesting the profits back and not paying it as a dividend to the shareholders in the liberal manner, but if the other way round is decided that investment requirements are not very high internally of the firm, firm is optimally capitalised. So, whatever the profit earned now that larger part of that will be distributed as the dividend.

So, that depends upon the stage of the business, if the business is on the inception or the growth stage then certainly more amount of the profit has to be re-invested back into the business. So, dividend has to be reinvested back, no dividend is to be paid or very nominal amount of dividend is to be paid and profit has to be reinvested back into the business, but if the business is on the saturation level and no further funds requirements is there, in that case you can decide that yes further investment requirements are low in the business.

So, whatever the profits, we earn that will be distributed as dividend. So, this is a very important third decision as the financial department or the head of the financial department or the finance department, the CFO has to take. So, three important decision, investment decision then is the, your financing decision and third one is a dividend policy decision.

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Now finally we talk about the relationship of all these decisions with the risk and return and the market value of the frim, ultimate objective is this. The market value of the firm we want to maximize the market value of this firm. When you want to maximize the market value of the firm, when the market value of the firm will be maximized when the total all decisions when you are taking they are in the interest of the organization.

Market value for example, you talk about, say there are the two kind of the values of the firms, one is the book value of the firm second is the market value of the firm. Book value of the firm is calculated by way of summing up all the assets of the firm at the book value at which they are acquired and then we try to find out from the asset side of the balance sheet.

What is the book value of the firm. Market value of the firm is basically, means if you talk in the true sense of the market capitalisation, then we say that total number of outstanding shares in the market, multiplied by the one price of the one share. So, that is known as the amount of the capitalisation you can calculate.

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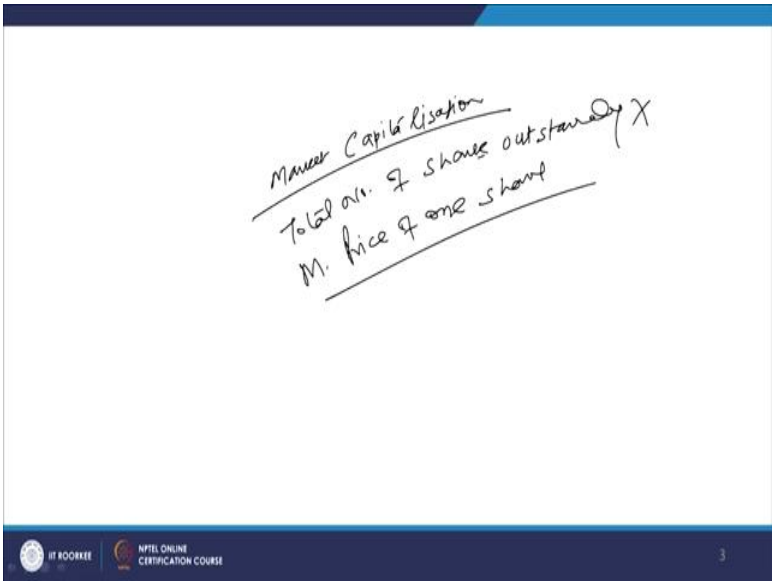

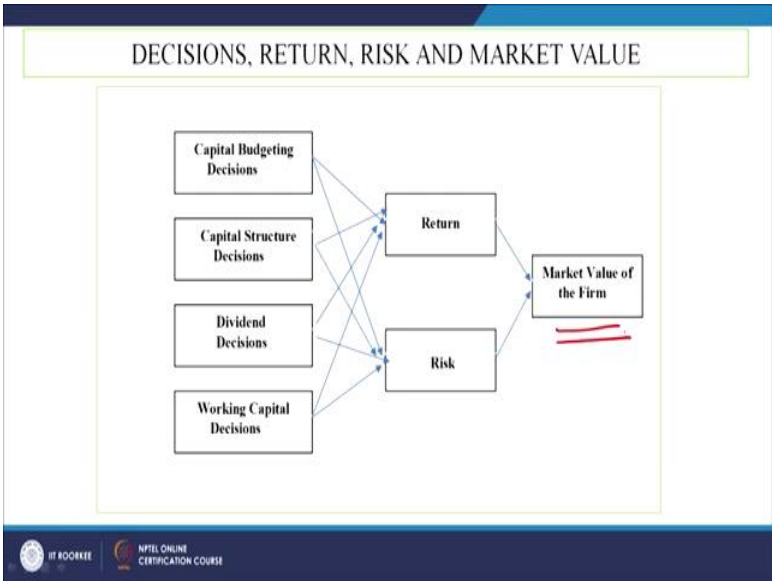

So, it means the market capitalisation is, the market capitalisation of the firm will be, if you want to calculate the market capitalisation, then in that case how to calculate the market value, this is the process you can easily calculate that total number of, total number of the shares outstanding, total number of the shares outstanding multiplied by the market price of one share.

So, it means that is called as a market capitalisation. Total number of shares outstanding multiplied by the market price of the one share, that is known as the market capitalization and though the market value of the firm, the capital, market capitalization of the firm is not same as the book value of the firm, but even the market value of the firm is also influenced by the book value of the firm.

If for example, if the firm is making the best utilisation of his fixed assets, best utilisation of its current assets and maximizing the overall profitability of the firm. So, that reflects its best performance in the market and that news spread out in the market that this is a best managed companies, the profits of the company are very high and on the basis of that best news spreading in the market price, people are ready to pay the very high price for the shares trading in the stock market.

Though they are not means reflecting the true value because there is a different in the market value of the share and book value of the share. But if you, or the book value or the intrinsic value of the share or the fair price of the share. But market capitalization or the market value of the shares which is largely the reflection of the traded price of the share. But that is also equally supported by the physical performance of the firm and physical performance of the firm largely depends upon your capital budgeting decision.

How means, honestly we are taking the investment decisions how robust our analysis is while deciding over the investment analysis how robust our total analysis is. How we have decided our capital structure. How we have decided our dividend decisions and how we are managing our working capital everywhere there the two aspects, one is the risk and another is a return, then you are taking the capital budgeting decision, both aspects are important.

When you taking capital structure decision both the aspects are important. When you are taking the dividend decision both risk and return are important. When you are taking the working capital decision both the aspects are important and finally, if you are able to maximize the returns of the firm for a given amount of the risk by virtue of taking all these four decision in a very very professional manner, then what will happen?

You will be able to achieve this final objective of maximization of the market value of the firm and if the market value of the firm is maximized it means the objective of the wealth maximization of the shareholders will be achieved.

So, we have to learn this, in this due course that how to achieve this target by managing your financial resources in the best possible manner. One more important dimension of the financial management is goal of financial management, where you want to go with the best management of your financial resources. What you want to do?

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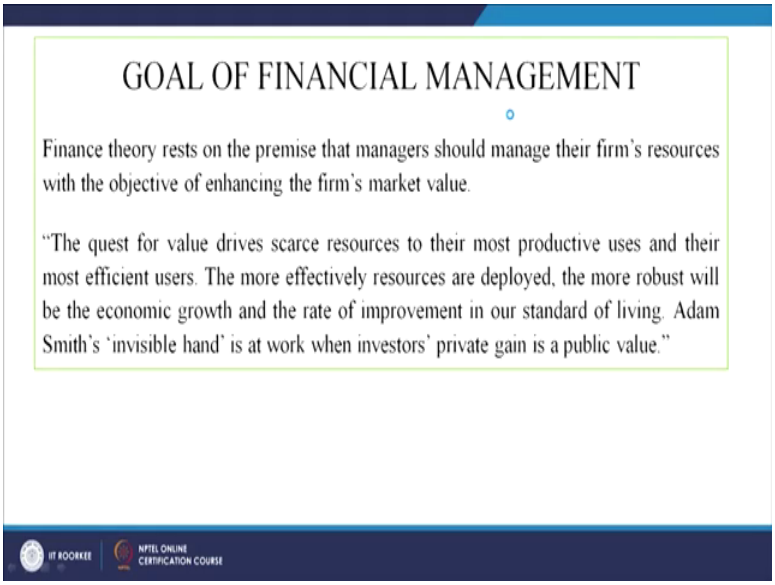

So, here what is written here first read that. Finance theory rests on the premise that manager should mange there firm's resources with the objective of enhancing the firms market value. Market perceptions and how the market perceptions increase when your physical performance of the firm goes up.

When your profit and loss account is reporting profit and profit is means every year it is going up. So, it means whatever the price for the share in the market we are paying, we are able to expect the better returns because firm physically is also performing though there is a difference in the market price of the share and the book value of the share, there is a difference.

Because traded price is different and the book value the intrinsic value is different that is there. But if the book value is increasing, automatically the market value will increase. And if you want to increase the market value of the firm that is why the, say market price existing market price per share and the total outstanding number of the shares.

In that case, what will happen your overall value of the firm will be maximized in the market. Market capitalization will be very high of that company. So, goal of the financial management is to use your financial resources which are scarce in nature in such a manner that by managing the given amount of risk, in the best possible manner, the return of the firm is maximized.

The cost of our value drives scarce resources to their, most productive uses and their most efficient users. The more effectively resources are deployed, the more robust will be the

economic growth and the rate of improvement in our standard of living. Finally, Adam Smith's invisible hand is at work when investor's private gain is a public value.

Physically you are growing, the firm is growing your profit is growing. Your sales are growing your revenue is growing, your expenses are within the control. So, the difference between the revenue and the cost is maximizing. So, ultimately your profit is maximizing, when the profit is maximizing you are getting the maximum amount of the dividend back as the shareholder and when the dividend amount is increasing, certainly the market value of the share of the company is also increasing.

That perception about the market value of the firm is increasing and the firms that value maximization objective is getting say attained. So, private gain is a public value, means whatever amount to the increase, whatever amount of the increase in terms of the dividend the firm is making by getting the maximum out of the dividend from the firm because of the increased profitability.

Same reflection is there in the market value or in the market price of the shares of the companies also. So, because the physical values increasing, intrinsic values is increasing, fair values increasing, certainly the market value of the share is also increasing. So, the private gain is becoming the public value.

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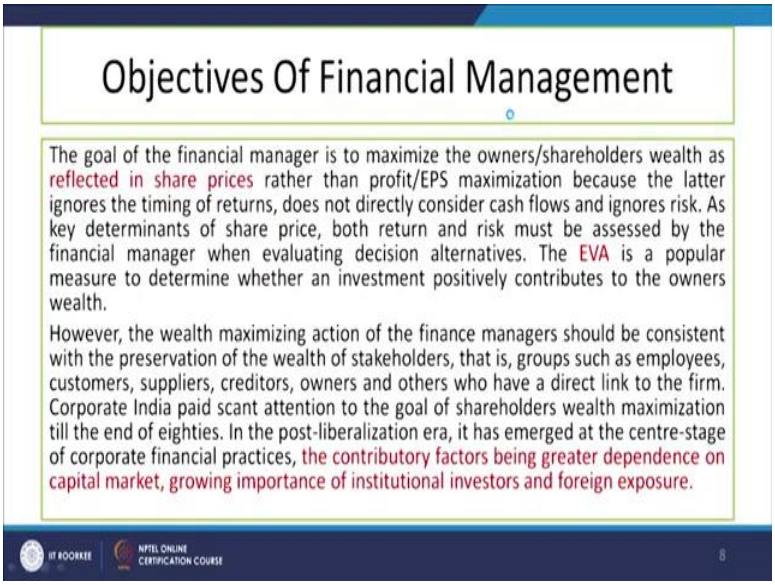

So, we have to achieve this objective of the goal of financial management and apart from the goal the objective is that, apart from that we have certain other objectives also apart from the value maximization of the shares of the company, we have some other objectives also and the other objectives of the company are or the financial management are.

Let us read what is written here, the goal of financial manager is to maximize the owners or shareholders wealth as reflected in the share price rather than profits or EPS maximization, because the latter ignores the timing of returns does not directly consider the cash flows and ignores risk. So, what is written here, the goal of the financial manager is to maximize the owner's wealth, as reflected in the share price that is ultimate objective.

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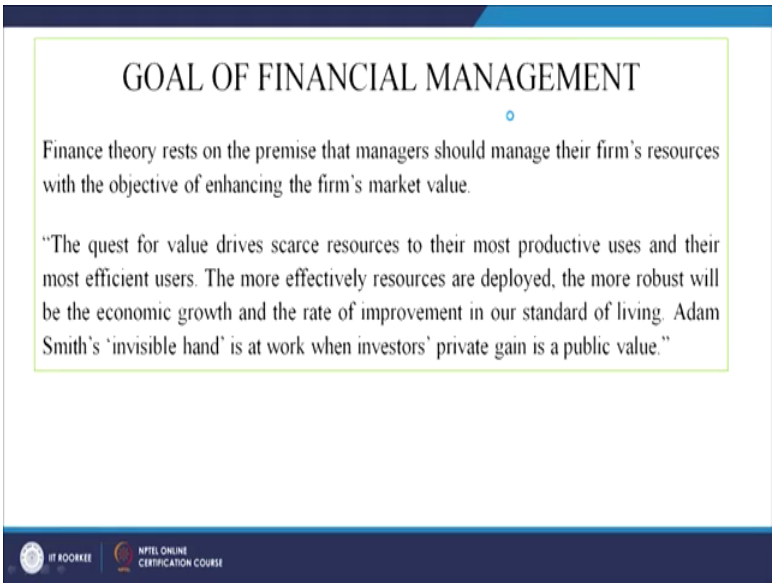

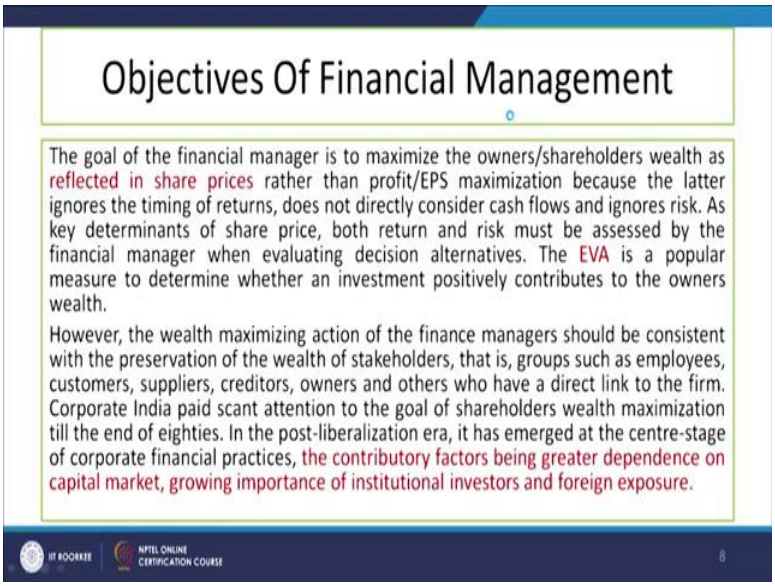

That is it is written here also, that the private gain is the public value. Private gain is in terms of the dividend and dividend in terms of cash. When the profit increases, then the dividend increases. So when the profit increases dividend should also increase and dividend should be passed on to the shareholders. And when that happens then what happens it is reflected in the increased price of the share, because it is the real.

The dividend is the real, if the dividend is passed on to the shareholders that is passed on, in terms of the cash and cash is more real as compared to the profits. So, it means the ultimate objective is to increase the market value of the firm by increasing the profitability and by increasing the dividend to the shareholders.

As key determinants of the share price, both return and risk must be assessed by the financial managers when evaluating decisions alternatives. Right from the investment analysis till the dividend policy decision, everything is important for us. The economic value added is a popular message to determine whether an investment positively contributes to the owner's wealth.

Next thing is, however the wealth maximization action of the finance, finance managers should be consistent with the preservation of wealth of stakeholders that is groups such as employees, customer, suppliers, creditors, owners and others who have a direct link to the firm, till the end of means say corporate India paid scant attention to the goal of the shareholders wealth maximization till the end of 80s.

In the post liberalization era, it has emerged as the centre stage of the corporate financial practices. The contributory factors being greater dependence on the capital market, growing importance of the institutional investors and the foreign exposure. Because of the increased say competition in the market. Because now the capital market has become very, very important for us.

Large amount of the funds are coming from the capital market to the businesses, shareholders are subscribing to the shares of the companies, awareness level has increased the investor participation in the stock market has increased, your stock market has become say means you can call it as like a world market, and efficient as the world markets are.

So, since the role of the shareholders has increased many (())(29:10). So, like other important stakeholders, shareholders welfare is another important objective and that ultimate objective can be achieved by the increasing the market value of the shares, because people will subscribe to the shares of the companies, whether it is through IPOs or through the secondary sale.

They would subscribe to the shares of those companies only, where the value maximization function is attained. So, ultimate goal of the financial management is the value maximization

of the firm and if that is attained, then the major objective of the better financial management is that we are able to give the better returns to the shareholders, who make investment in the market by way of subscribing to the shares of the companies.

So, important objective apart from the goals of financial management, important objective of the firm is that, like your important, say stakeholders like customers, suppliers, creditors owners and others we have to have, means very important and respected position to give to the shareholders also, who are the suppliers of the blood, lifeblood to the companies and if the funds are coming in the liberal manner to the companies then ultimate objective of wealth maximization can be achieved because you have the best input in terms of material, in terms of employees, in terms of the final product to the customers.

So, if all interest group are satisfied, return on the firm's investment will be maximized and ultimately this will be reflected in the increased share price of the company because physical performance of the company has increased because of the increased profitability, increased revenue, increase profitability increased sales and ultimately the maximum returns we are able to give back to the shareholders. So, objectives and goals of the financial management is maximization of the firm's value and second thing is maximizing shareholder's wealth.

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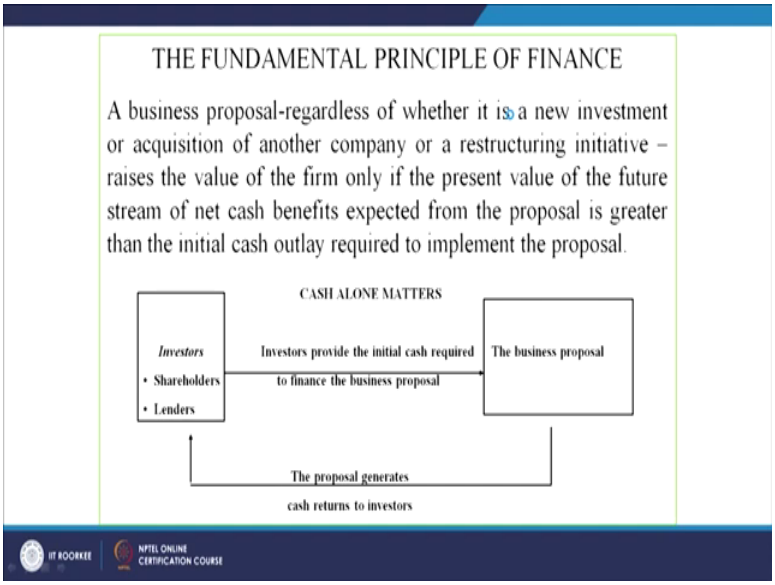

Now, the other important things, when you talk about here is that, means before we close the discussion for today. I would like to discuss this structure with you the fundamental principle of finance, means what we have been discussing just now that what should shareholders give it to you or to the firms and what the firms return back to shareholders. This structure, this relationship goals something like this.

Now, look at this, the fundamental principle of finance, the fundamental principle of finance speaks here is a business proposal regardless of whether it is in new investment or acquisition of an, another company or restructuring initiative. New investment may be by an entrepreneur or maybe by the existing company into the new product new service or new division.

Whatever it is or acquisition of another company again a investment decision or restructuring initiative in the existing company, again a investment decision raises the value of the firm, only if the present value of the future stream of the net cash benefits expected from the proposal is greater than the initial cash outlays required to implement proposal

You invested 100 rupees today, in whatever manner maybe as a entrepreneur, may be as your say adding the new product into the adjusting product mix or by acquiring a new company or by restructuring the existing business operations. Because of that investment of 100 rupees, that 100 rupees has to be magnified and the future value of that 100 rupees, the benefits which are arising out of this investment must be more than that 100 rupees.

If we are able to achieve that target, means finally when you calculate the net present value of any investment. We calculate the present value and the net present value of any investment which we will discuss at the later state in the capital budgeting decisions. So, when you calculate the net present value of any investment decision, we try to find out that we make a relationship between the, or analysis between the outflows of the funds and inflow of the funds.

Outflow is when the investment is made, funds outflow from the firm, from the business to its operations. When we move into the operations, product is produced or service is generated that goes to market then by way of virtue of the sales revenue comes in. So, funds start flowing in time and then we make a time say value of money analysis and because of that time value of money analysis, we see that whatever the investment we made in today's period in the current period that is equal to the 100 percent.

But the inflows are coming over the future period of time. So, we adjust them against the time value of money and then we compare it that, what was the total present value of the outflows of the funds which we invested in the business?

What is now the present value of the funds coming back to us in the form of the inflows over the future period of time and then we make a comparison of the two and the minimum decision making criteria is that the present value of the outflow must be equal to the present value of the inflows and the NPV should be 0.

If this is the decision we can say yes, we can think of going into that investments, if the decision is otherwise means outcome is otherwise, that for example the present value of the outflows is more than the present value of the inflows, then the NPV is negative, there is no point going for this kind of the investment decision and if the reverses happens that the present value of the inflows is more than the present value of the outflows then certainly we are into the say win-win situation.

And that situation occurs only that finally, what we invest and what we get back in return if there is a difference, positive difference that investment is lesser than the inflow coming back to us then certainly we would say we are able to provide the reward back to the investors or to the shareholders.

So, this structure says that investors are who they are the two kind of investors in the firms one is the shareholders, second are the lenders and what they do is investors provide the initial cash required to finance the business proposal. They provide the initial finance to say finance the business proposals and that cash goes to the business in the form of the outflows.

And then whatever that business takes place after selling, manufacturing and selling the product and services in the market. Whatever the revenue comes back after adjusting for all the expense and everything the proposal generates a cash returns to the investors and that again is coming back to them in the form of inflows.

So, we make a outflow inflow analysis or inflow outflow analysis and we adjust these inflows and outflows against the time value of money. And finally, we say that, that a business proposal regardless of whether it is in new investment or acquisition or another of another company or a restructuring initiative, raises a value of the firm only, if the present value of the future stream of the net cash benefits, present value of the net cash flows occurring to the firm in future.

Expected from the proposal is greater than the initial outlay required to implement the proposal. If you invested 100 rupees today and after means total 5 years cash inflows

annually, means in the first year also we are getting something, second year we are getting something, third year we are getting something, fourth year we are getting something, fifth year we are getting something.

So, sum total of the 5 years cash flows if they are discounted against the time value of the money. For example, we invested 100 rupees which is equal to the 100 rupees today and after 5 years, we are getting the inflows back and present value of that when converted equal to the, say today's value comparing the inflows with the outflows and for example that value works out as 200 rupees discounted value of all the future cash inflows works out to be 200 rupees. So, what will happen?

Your cash flows is 100 rupees, your inflows present value is 200 rupees. So, net present value is 100 rupees. It means, they are able to give some reward back to the shareholders to the lenders who provided the funds to the business and ultimate objective of the wealth maximization of the shareholders and the value maximization of the firm is attained. So, when you talk about this comparison between the outflows and inflows. So, when you are making the investment of 100 rupees.

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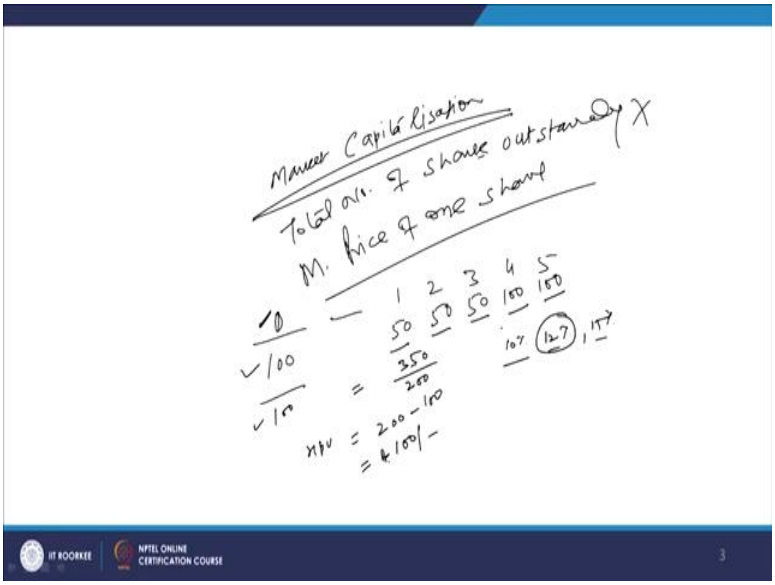

For example, I will explain it to you, that for example when you are investing the 100 rupees. So, we invested in the 100 rupees in the year 1. So, this 100 rupees is equal to 100 rupees, because the present value of the 100 rupees is 100 rupees. And we run this business for the next say 5 years. So, we will call it is as the present year is the 0 year and the first year, second year, third year, fourth year and fifth year, we have the 5 years now.

For this investment the life of this investment is 5 years. In the first year we got the return is 50 rupees, then we again got the return of 50 rupees again we are getting the return of 50 rupees, then we got return of 100 rupees cash inflow and then this is a cash inflow of the 100 rupees. So, to have the net present value of any investment proposal or any project.

We need to have a say cash flows and cash flows are basically of the two types, one is the cash outflow and another is the cash inflows. So, cash outflow is basically the investment which we make and that investment is normally made in the current period and that current period is called as the 0 period here this period is called as a 0 period and if you take this investment 0 period.

So, for example in this case we have invested 100 rupees, this is called as a cash outflow. And when we are going to now start the project and the commissioning of the project and the production will start coming up and output will start coming up and we start selling it in the market.

So, after that finally the cash flow which comes back to us that is called as a cash inflow and the cash inflow here is for example in the first year we get this 50 rupees, in the second year we get 50 rupees, third year we get 50 rupees, fourth we get 100 rupees and fifth year we get 100 rupees.

So, what we have to do is to calculate the net present value, we have to now subtract the say the cash outflow from the cash inflow. But see, we have to calculate the present value of these cash inflows and the cash outflow also. So, if you look at the cash outflows, cash outflow for example this 100 hundred rupees which we are making, that is in the current period.

So that is, I have signified it as the 0 period. So, 100 is equal to 100 in the current period and whatever these inflows are coming us, they are coming back to us at the end of the year, they are coming back to us in the end of the year. For example this, in the say first year we are getting 50 rupees.

So, 50 rupees coming back at the end of the first year. So, it means there is a time lag of the 12 months, 1 year. So, it means 100 rupee in the current period and 50 rupee coming back to us, after 12 months is not equal to 50 rupees but something less than that. Similarly, next 50 rupees coming back to us after 2 years at the end of the second year, this 50 rupees coming

back at the end of the third year, this is coming back at the end of the fourth year and this 100 is coming back at the end of the fifth year.

So, it means now, we have to sum it up, and if you sum it up, so what becomes it. For example this 100 is equal to 100. But this amount has, they will become how much? This amount will be come 350 rupees. But this 350 rupees is the value which is a non-discounted value, once you discount it by using some discount factor to calculate the time value of money to calculate the time value of money.

So, time value of money means you have to discount these future cash flows against some discount factor to calculate the present value and if you sum it up this works out as 350 rupees and if you discount it again some factor. For example, say 10 percent or maybe it is called as 12 percent or it is called as 15 percent. So, how we have these discount factors, I will discuss with you later on. But you understand that this moment that this future cash flows, cash inflows have to be discounted again some discount factor.

For calculating the present value, so that you can apply the concept of the time value of money. And for example if you discount it against this 12 percent. So, what will become this discounted value of this for example 350 becomes a 200 rupees. This 350 is equal to 200 rupees because 350 coming after means over a period of 5 years will be if it is discounted and to compare with the today investment.

So, it means this becomes discounted value of 350 becomes 200 rupees. So, it means for calculating NPV Net Present Value, this what you will do is inflow present value of inflow minus the present value of outflow and NPV will be how much? 100 rupees, this is called as 100 rupees NPV.

So, Net Present Value will be 100 rupees. So, we have to apply the concept of the time value of money, we have to calculate the time value of money. So, that the net present value of any investment proposal can be worked out. So, in the current period 1 rupee is equal to 1 rupee. So, similarly 100 rupees is equal to 100 rupees.

But when the cash inflows are coming to us, they are coming us over the period of time and every year they are not coming in the beginning of the year, also there at the end of the year. So, even in the first year this 50 rupees coming, they are not equal to 50 rupees if you compare it in the today's terms, it will be something less than that.

So, you have to discount it by applying some discount factor 10 percent 12 percent or 15 percent and then once you discount it. So, for example discounted value of 350 becomes, 200. So, the present value of inflows, total inflows is 200, present value of the outflow is 100. So, the NPV of the project is 100. So, since the NPV is positive, so you can take up the project and the investment proposal can be approved can be, can be taken up and we can go ahead with this investment proposal.

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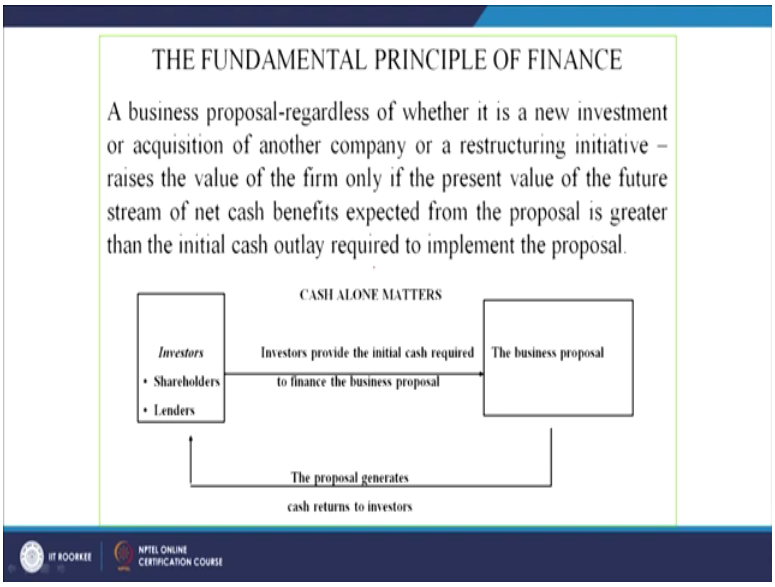

The objective of the business which I was saying here that the value of the firm only, means it raises the value of the firm only, if the present value of the future stream of the net cash benefits expected from the proposal is greater which is 150 then the initial cash outlay required to implement the proposal which is 100.

So, it means ultimate purpose of the business is attained because we are able to maximize the wealth of the shareholders and lenders and against investment of 100 rupees. We are able to get them back 150 rupees.

So, this is the fundamental principle of the finance that when you make any, whenever you make any investment that investment must be appreciated over a period of time and the discounted value of that means outcome of that investment, must be either equal to the investment or greater than that.

So, I will stop here, this is just the beginning of the basics of the fundamentals of financial management in the due course, we will discuss the some other related and advanced concepts of financial management, thank you very much.