Financial Accounting
Dr. Puran Singh
School of Humanities and Social Sciences
Indian Institute of Technology, Mandi

Lecture – 85
6.15 Practice Problem – Profitability Position

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Alright, let us look at another practice problem in profitability ratios. We have been given some numbers here, some information here, and we are going to calculate a set of ratios which are dividend yield ratio, dividend per share, earnings per share and pay-out ratio.

So, let us look at the contents on the slide one by one; understand these and then, we will calculate the ratios. The first item given on the slide is 10 percent preference shares. What are these 10 percent preference shares of 10 each? What does this mean?

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I am going to take a new slide to explain this. 10 percent preference shares of rupees 10 each, the amount is 500,000. What does this mean? This 10 percent here refers to the fixed dividend; fixed dividend that preference shares are eligible for. The preference shares mean that they have a preference. They have a preference above the equity; preference before the equity shareholders. What kind of preference are we talking about? We are talking about in the event of a company making some profit, first the preference shareholders' dividend will be paid. Whatever amount is left will be paid to the equity shareholders.

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We are to look at the net profit which is given to us. Net profit after taxes has been given as 300000. Out of this, you will first pay the preference dividend or the dividend to be paid to preference shareholders. You pay this and then whatever is left will be the earning available to equity shares, earning available to equity shareholders. This is what it means. Let us move forward: it says rupees 10 each. What is this? Now, this is called face value. What is face value? Face value here is a 100 rupee note. I think you have seen 100 rupees note. On a 100 rupees note, it says 100; on its face, it says 100. You go to the market; you can buy goods worth 100. The note has a face value of 100, fine. This face value is not going to change; it is going to stay. However, in case of shares, there is a share certificate, share certificate which says the share was bought in the beginning for rupees 10 each. Now, in this case how many preference shares are there? There are 50,000 preference shares, each of rupee 10 and hence, 500,000 rupees were invested in preference shares in the beginning. Let us assume there was only 1 investor; I was the investor; I bought 50000 shares of 10 rupee each so 500,000 was invested in the beginning. Now, this is called the face value, the value at which the shares were were issued by the company in the beginning; this is the face value. Why is this face value important? The face value is important because when the dividend is going to be declared, that dividend is going to be declared as a percentage of the face value. So, here preference shares have a dividend of 10 percent. So, 10 percent dividend means the dividend on preference share is equal to this 500000 multiplied by 10 percent. Thus, 50,000 is the dividend to be paid to preference shares and if you want to know the dividend per share for preference only, not equity shares; this is preference only, then you have rupees 10 per share multiplied by 10 percent. So, rupee 1 per share is the and there are 50000 shares. So, 50000 rupees is the preference dividend. As we have calculated this number, I am going to go to this slide and write 50,000. This is the preference dividend which has to be paid and then, you are left with 250,000 which is the earning available to the equity shareholders. So, now we have understood the first line here. The second line says 60,000 equity shares of 10 each. Again, this is the face value for equity shares. Both equity and preference shares will have a face value and this is the total value of the equity share. So, in the beginning, say you are the equity investor, you had bought 60,000 shares at 10 rupee each, then 600,000 was invested in the business. When it says profit after tax, this number we know how it is arrived at. Then you have an equity dividend paid; this is new, 20 percent. So, on the 10 percent preference dividend something which is fixed; does not matter what is the profit made during the year; 10 percent of the face value of the preference shares will have to be paid to the preference shareholders. On the other hand, in the case of equity shareholders, this decision of 20 percent is taken by the board of directors. The board of

directors decide at the end of the year after paying to all the other stakeholders. This is the net profit. This is the preference dividend now; we are left with x amount of money. Out of that, how much can we pay as a dividend. So, 20 percent dividend again is not as a percentage of the leftover profit, but as a percentage of face value. So, the equity dividend is going to be equal to 20 percent of the face value; face value. Total face value is 600,000; dividend at the rate 20 percent of the face value of the share. So, 20 percent is going to be 120,000. This is 20 percent, one-fifth of 600,000. When you pay this, then you are left with the remaining which is 130. This is retained earnings during the year. So, equity dividend 20 percent, we have figured this number out as well. Finally, you have a market price which is simply the price at which share is being bought and sold in the market. Now, there is a stuff called market price and there is this face value, what is the difference between these two, let me clarify that as well. Let me use this side. There is something called the face value which was rupee 10 and we have understood what face value is. Now, let us say shares were issued way back in 2015 and now, we are in 2020. I want to sell my share. Where do I sell my share? In order to sell the share, you go to market. This market is called secondary market or the stock market. I go to stock market, my share has been listed online, and I can sell this share to anybody else who wants to buy it. I invested 10 rupees 5 years back, the company has done well. I do not want to sell this share at 10 rupees. I will certainly sell this at 50 rupees now, for example, so if somebody is willing to buy at 50, the transaction takes place. So, now, we will start calling it a market value or a market price of the share in the stock market.

This is how the market price is determined. The share certificate will continue to say 10 as the face value of the share; but in the market, you can sell it for more. So, the additional premium of 40 rupees is the increase in the value of the share over a period of 5 years. This is how face value and market value differ.

There is another term which is called book value; book value per share. The book value per share is calculated as follows: you take shareholders' funds which is the capital plus reserve and surpluses and divide that by the number of shares. What does it mean? Shareholders' fund is equal to the capital invested plus the reserves and surpluses divided by number of shares.

Essentially, this capital was the actual capital that was invested in the beginning and over a period of time, more money has been earned and retained by the company which also belongs to the shareholders. So, we are just adding this increase. During the five years, whatever profits

have been retained after distributing to other stakeholders, the total profit available at this time are added to capital and then, divided by number of shares and you have the book value.

So, remember the difference between these three; book value is something which is also frequently disclosed by the companies or if you go to websites, they will talk about book value. Do not be worried about book value, it only reflects the increase in the face value of the share by the amount of reserves and surpluses. I think we are all set. We have to calculate these four ratios and we are going to get started.

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The first ratio we are going to calculate is earning per share and I am going in a sequence which is logical as well. So, earning per share is going to be equal to earnings available to equity shareholders divided by the number of equity shares. So, earnings to equity is 250,000, divide this by the number of equity shares and number of equity shares are 60,000 and you have the earnings per share. This comes out to be say 4.17, somewhere around it. So, this is earning per share per share here.

Next up, we can calculate the dividend pay-out ratio. We know that some earning is available and that earning is 250,000. However, we are not going to pay out all the money to the equity shareholders. The actual money paid to the equity shareholder is 120,000. You have a dividend paid to equity and divide this by the earnings to equity. So, potentially all the money belonged to the equity shareholders, but only a part of it has been distributed as a dividend and the remaining amount has been retained. So, the dividend paid is only 120,000 as a percentage of

earning to equity which was 250,000 here. Out of 250, 120 is being paid. So, if you multiply this by 100, you get a dividend pay-out ratio. I have the calculator here; this comes out to be 120000 divided by 250000, this is 48 percent. So, out of the earnings available to the equity, 48 percent is being distributed, is being paid out. So, this is the dividend pay-out ratio.

Next up is the dividend per share. Dividend per share is equal to dividend paid to equity divided by number of equity shares; number of equity shares. So, the dividend paid is 120,000 and you divide this by the number of equity shares which are 60,000 and you have 2 per share; rupees 2 per share is the dividend per share.

And finally, you have dividend yield ratio; dividend yield ratio is equal to dividend per share divided by the market price of the share. So, rupees 2 is dividend per share and market price was 30; divided by 30 and this multiplied by 100. So, this gives you how much? So, 6 percent or about 6.66 percent is the dividend yield. This is the return that you would make on the investment in this share; so, 6.66 is 6.67 percent. So, these are the numbers.

So, what is happening here is the company is earning per equity share, it is earning 4 rupees, out of which it is paying out 48 percent which is 2 rupee per share and the new investor who will want to buy the share has a possibility of making 6.67 percent return if he buys the share at 30 rupees per share.

So, in this video, we looked at the profitability position. We looked at these four ratios. Using the numbers, we have learned the sequence in which these numbers or these indicators can be calculated. We have also learned the concepts of face value, market value, and book value.

You have also gone through this process to understand how profit is distributed, how profit is appropriated amongst the stakeholders and how the retained earnings come into play.

I hope you had good learning in this practice problem. I will see you in the next video.