Financial Accounting
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Lecture – 84
6.14 Practice Problem – Profitability Position

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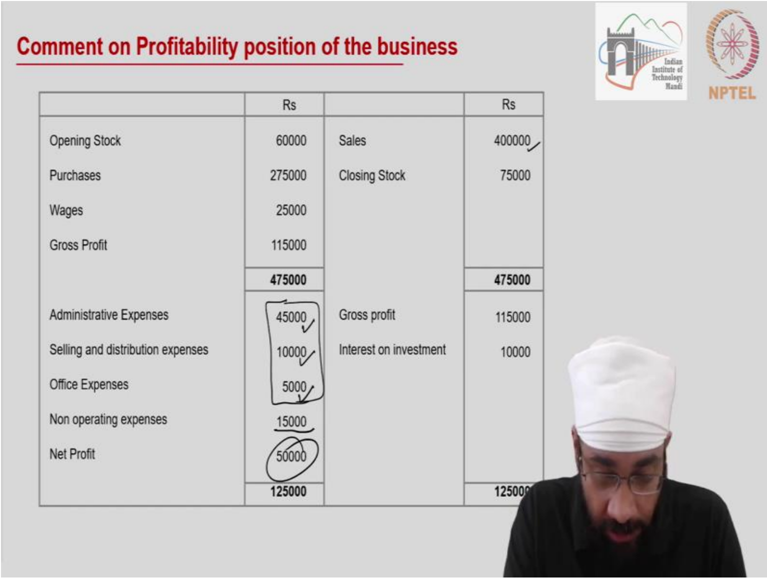

Let us look at another practice problem. We will talk about the profitability position of a business in this practice problem. We have a profit and loss account here with all the relevant details and we will work out various indicators of profitability position.

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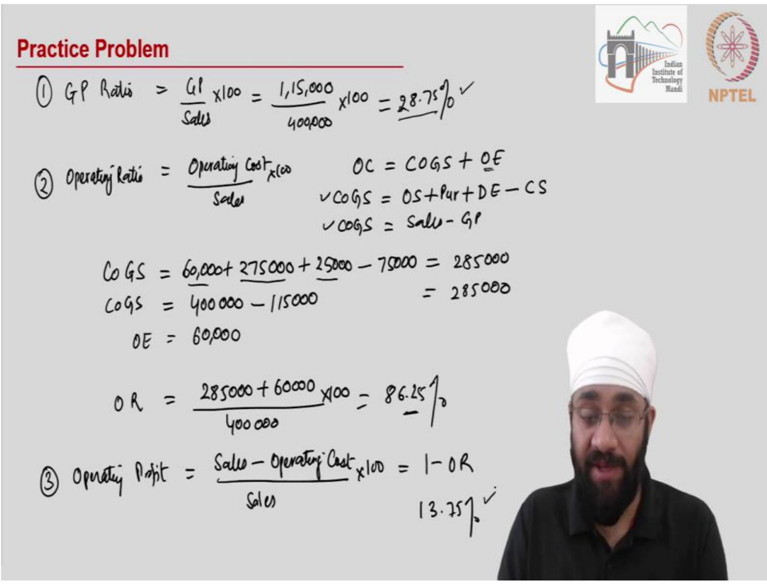

The first indicator of the profitability position is the gross profit ratio. The gross profit ratio is simply the gross profit divided by sales multiplied by 100.

Gross Profit Ratio = (Gross Profit/ Sales) *100

So, gross profit here is 1,15,000; 1,15,000 divided by sales which are 4,00,000 multiplied by 100. So, all you have to do is the calculation. I will use my calculator for this 115 divided by 400 gives me 28.75. This is the gross margin at which this business is operating. Done, the first ratio is calculated.

The next ratio is called operating ratio. The operating ratio is a ratio of the operating cost and the sales of the business.

Operating Ratio = (Operating Cost/Sales) *100

What is the operating cost? The operating cost is equal to the cost of goods sold plus the operating expenses, the indirect expenses which are operating in nature. Then, what is the cost of goods sold? Cost of goods sold is equal to opening stock plus purchases plus direct expenses minus the closing stock. Alternatively, you can also figure out the cost of goods sold by deducting gross profit from sales. We can use both these methods to verify our numbers as well. Let us just figure out the cost of goods sold. Cost of goods sold is equal to opening stock which is 60,000, plus the purchases 275000, plus direct expenses which are wages 25000, minus the closing stock which is 75000. And, by now you will know where this content is, that is what I am assuming. So, this gives you a total of how much? This is 275; this is 300,000; 3,60,000 minus 75000, this is 285000 and if you want to use the other way, then you have sales which is 400,000 minus the gross profit. Gross profit is 115000. So, this gives you again 285000 as the cost of the goods which are sold during the year. Now, you need to look at the operating expenses; what are the operating expenses during the year in addition to the cost of goods sold? The operating expenses will include administrative expenses, selling and distribution, office expenses and then, we have non-operating. So, we are only considering this much. This comes out to be 60000; operating expenses are 60000. Let us now figure out the operating ratio which is equal to cost of the goods sold 285000 plus the other operating expenses divided by the sales which is 400000 multiplied by 100; that is it. I will use my calculator for this; this is 285 plus 60 divided by 400. So, this is 86 percent; 86.25 percent. What does this mean? This means 86.25 percent of my revenue goes into my operating expenses.

Earlier, I calculated 28.75 percent as the gross profit ratio which meant we had a gross margin of 28 percent. Now, we are looking at operating cost. Our operating cost is 86 percent of the sales.

Let us look at the third ratio which is the operating profit ratio. Operating profit ratio is nothing but sales minus the operating cost.

Operating Profit Ratio = ((Sales- Operating Cost)/Sales)*100

Sales minus operating cost gives you the operating profit and you divide it by the sales again to figure out the operating profit ratio. So, it is going to be equal to 1 minus the operating ratio which is this. Therefore, our operating profit ratio comes out to be 13.75. Our operating profit is 13.75 percent. The gross profit was 28 percent. The operating profit is 13.75 percent.

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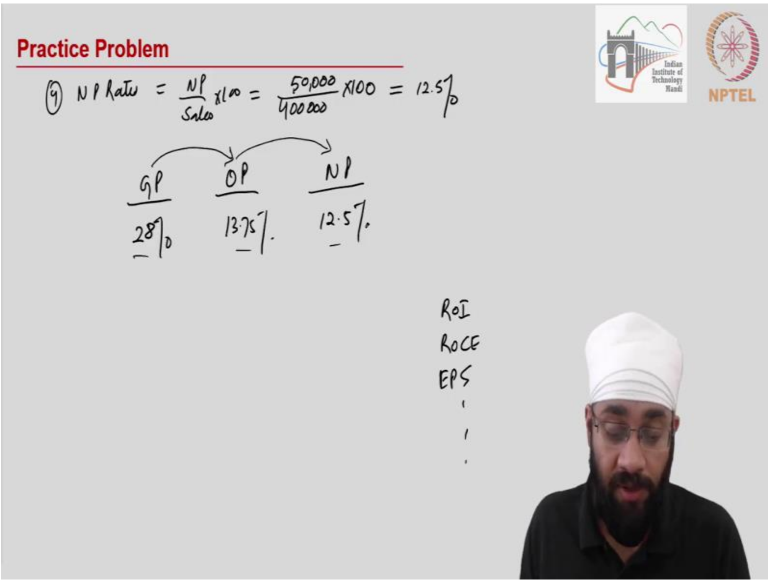

Let us look at what the net profit ratio is. So, number 4 net profit ratio is equal to net profit divided by sales into 100 of course.

Net Profit Ratio= (Net Profit/Sales) *100

Sales is 400000, net profit is what we need to look at. Net profit given 50000; so, 50000 divided by 400000 into 100, it gives you how much? It comes out to be 1/8 or 12.5%.

12.5 percent is the net profit ratio. Now, you started with 28%. The gross profit ratio was 28% and then, your operating profit ratio went down to 13.75% and now, your net profit ratio is

12.5%. I hope logically it makes sense as well. From gross profit, you pay some expenses and you have operating profit and then, you pay non-operating expenses and finally, you have net profit. So, whenever you are doing these calculations, also look at if all these ratios together make sense. Do they support each other in terms of your calculations? So that you do not make any mistakes. You should be able to identify if a mistake has been made.

So, these are the profitability ratios. Other than this, of course there are return on investment, return on capital employed, EPS and number of other ratios that can be calculated. But we do not have information to answer those questions, you could figure out EBIT; but that is not the profitability position of the business.

So, I think we are set for now. We can answer these many questions from the data which is provided to us. Are we in a good profitability position or not, can be based upon the industry standards. Right now, you could answer only these many questions.

I will see you in the next video.