

Welcome learners.

Today I'm going to take up a module for Semester 6 Cost Accounting Major 5 paper Advanced Cost Accounting. The name of my module is transport costing, part one from Unit 2 Operating Costing. Myself, Mrs Rupali, Sangodkar, Assistant Professor of Commerce from Government College of Commerce and Economics, Borda Goa.

In today's module I'm going to take up format of operating cost sheet and a problem on transport costing. Upon completion of this module, the student will be able to identify the components in operating Cost Sheet, apply the components of operating cost sheet to calculate total operating cost, calculate total passenger kilometers and calculate cost per passenger kilometers.

Basically in transport costing the cost of providing the service by a transport company is calculated, so we will understand transport costing with the help of a problem.

The first thing that we need to calculate in transport costing is total operating cost and to find out total operating cost we need to prepare a operating cost sheet. As you can see on the word file right at the beginning, we need to mention the vehicle number and the period. Period could be a month, it could be a quarter or it could be half yearly.

Basically, in operating cost sheet, costs are classified into three categories. The first categories of cost are called as fixed or standing cost. These are the costs which remain fixed irrespective of the change in the volume of the business. The examples will make the concept clear salary of drivers, conductors in cleaners, Garage rent, administrative expense expenses, insurance premium, motor vehicle tax Road tax, interest on capital and depreciation. Now depreciation will be considered as a fixed cost if it is on the basis of time. Meaning, if you are given

depreciation per month or you are given depreciation per annum or if depreciation is to be calculated by taking into consideration cost, the scrap value and life, then depreciation need to be taken is a fixed cost.

Moving further towards the second classification, of course, that is maintenance cost. These are the costs that are incurred to maintain the vehicle in good condition. Examples are repairs, overhauling, (overhauling, is making improvement in the vehicle by, maybe, by replacing a part or a component, or by incurring some repairs so that the vehicle is kept in good condition). Painting, tyres and tubes and cleaning.

Third classification are operating costs are called as operating or running cost. These are the costs that are incurred in day to day activities and which vary with the amount of kilometers the vehicle is running. The examples are petrol or diesel oil, grease, wages.

Depreciation, if it is related to the operation, meaning if depreciation on the vehicle is to be calculated by considering the kilometers that is run by the vehicle or depending upon the mileage of the vehicle, then depreciation needs to be considered as a operating or running cost and not fixed costs. The total of fixed costs, maintenance costs and operating or running course will give you the total operating cost. This operating cost, we are going to use in order to calculate cost per unit for a transport company.

Now let us understand transport costing with the help of an example. Let me first read the problem for you. A green transport company is running four buses between two towns 50 kilometers apart. So the two towns are 50 kilometers apart. That means the distance is 50 kilometers. Seating capacity of each bus is 50 passengers. The following information is available from the records of the company now the information that is given is the expenses and they are given for a

month, salary of driver and conductor, diesel and oil repairs and maintenance, depreciation, interest and insurance now these expenses are for a month. Actual passengers carried were 75% of the seating capacity. It means in the bus on an average 75% of the seats are full. All the four buses run on all the days of the month. The question that is asked is to ascertain the cost per passenger kilometer.

Now one thing we all need to know and identify is what is the cost unit for which costs need to be calculated. Now from this question where can identify all we can say that the cost unit for this problem is a cost per passenger kilometers. So considering the cost unit we have to arrive at the formula.

So cost per passenger kilometers is equal to total operating cost divided by total passenger kilometers. The denominator, as I mentioned will depend on the cost unit here because we have taken cost per passenger kilometers the denominator is total passenger kilometers. If the question or if the cost unit is passenger miles, then the denominator will be total passenger miles. So to solve this problem or to answer the question, we first need to know the total operating cost. As said earlier, total operating costs will be calculated by preparing our operating cost sheet. In the operating cost sheet first we will find out which costs are fixed costs. So from the given information in the problem, salary of driver and conductor 20,000 is the fixed cost the depreciation of 24,000 interest 18,000 and insurance 14,000. So the total of fixed cost is 84,000. That is the total of these four costs that are shown in the operating cost sheet.

Moving towards the second classification that is maintenance costs, under maintenance costs we are going to show repairs and maintenance of 10,000. So the total maintenance cost is 10,000.

Moving towards the last or the third classification of cost operating or running cost, we need to take here a diesel and oil amounting to rupees 40,000. So total operating or running costs as you can see is 40,000. The total operating costs/grand

total will be calculated by adding total fixed costs and maintenance costs and total operating costs. So in this problem the grand total that is total operating cost is 1,34,000.

Moving to towards, the denominator part, denominator which we have to arrive at depends upon the cost unit is total passenger kilometers. The formula that needs to be used in order to calculate the total passenger kilometers is number of buses or you can say number of vehicles multiplied by distance (now distance of each trip is going and coming back) multiplied by the number of trips on a day, multiplied by the seating capacity of each bus, multiplied by the number of days (now number of days in a month. Why in a month? Because we have prepared our operating cost sheet for a month. So since we have prepared the operating cost sheet for a month number of days in a month, we need to take) multiplied by percentage of seats occupied. (If it is given, we need, we take that. If not we have to assume that percentage of seats occupied 100 percent).

So on substituting the information in the formula we get this. Number of buses is four. Distance, as I mentioned, distance for trip that is going and coming back. In the problem, what is given is the bus runs on between two cities which are 50 kilometers apart. So distance of each trip will be $50 * 2$. That is 100. Multiplied by number of trips. Now in this problem number of trips is not given, so we will assume one trip per day. Seating capacity of the bus, this is given in the problem 50 passengers who have taken 50. Number of days in a month is not given, so we'll assume the month has 30 days. So I've taken 30 multiplied by the percentage of seats occupied. It is 75%. On calculating this answer, I get is 4,50,000 passenger kilometers. So till here what we have arrived at is the numerator and we also have arrived at the denominator. On substituting the information in the formula total operating cost divided by total passenger kilometers. So the numerator, which we have arrived at from the operating cost sheet which is 1,34,000 and the

denominator which we have calculated using the formula which comes to 4,50,000. So arriving at the answer the answer is rupees 0.30. That means cost per passenger kilometer for this company is 0.30. So on deciding the rate that needs to be charged to the passenger cost will be considered. To that some profit margin will be added in there by the final rate, which will be charged to the customer will be arrived at.

These are the books which I have referred or which you can refer for future problems.

Thank you.