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Subject: Advance Cost Account

Topic: Operating Cost

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M.com. Part I Sem. II

Introductio

- Cost Accounting has been traditionally associated with manufacturing companies. However in the modern competitive market, cost accounting has been increasingly applied in service industries like banks, insurance companies, transportation organizations, electricity generating companies, hospitals, passenger transport and railways, hotels, road maintenance, educational institutions, road lighting, canteens, port trusts and several other service organizations.

What is Operating

Costing?

- The costing method applied in these industries is known as 'Operating Costing'. According to the Institute of Cost and Management Accountants [UK] operating costing is, 'that form of operating costing which applies where standardized services are provided either by an undertaking or by a service cost center within an undertaking'.

Nature of Operating

Costing

- The main objective of operating costing is to compute the cost of the services offered by the organization.
- For doing this, it is necessary to decide the unit of cost in such cases. The cost units vary from industry to industry. For example, in goods transport industry, cost per ton kilometer is to be ascertained while in case of passenger transport, cost per passenger kilometer is to be computed.

- The next step is to collect and identify various costs under different headings. The headings used are,
- Fixed or standing charges
- Semi-fixed or maintenance charges
- Variable or running charges.
- One of the important features of operating costing is that mostly such costs are fixed in nature. For example, in case of passenger transport organization, most of the costs are fixed while few costs like diesel and oil are variable and dependent on the kilometers run.

Transport Organization

- Transport undertakings include goods transport organizations as well as passenger transport organizations. The cost unit is either **ton kilometer** or **passenger kilometer**. The meaning is cost of carrying one ton over a distance of one kilometer or cost of carrying one passenger for a distance of one kilometer. The costs are shown under the following heads.

Standing Charges or Fixed Costs: These are the fixed costs, which remain constant irrespective of the distance travelled. These costs include the following costs.

- License fees and insurance
- Salaries of drivers, cleaners and conductors
- Garage costs which include garage rent and other relevant expenses
- Depreciation of the vehicle and other assets
- Taxes applicable
- Any other fixed charge like administrative expenses etc.

Variable Costs or Running Costs: These costs include,

- Petrol and diesel
- Oil
- Grease
- Any other variable cost

Maintenance Charges:

- These charges include expenses like repairs and maintenance, tyre, and other charges connected with maintenance like servicing of the vehicles etc.
- The cost sheet for transport organizations can be prepared in the following manner.

XYZ Transport Company Ltd.
Cost – Sheet – October 2007

**Vehicle
No:**

**Registration No.
Operated:**

Days

Particulars	Particulars
<p>A. Standing Charges/Fixed Charges</p> <ul style="list-style-type: none">▪ Insurance▪ License/Permit fees▪ Salaries of drivers, cleaners etc.▪ Depreciation▪ Interest	<p>C. Maintenance Charges</p> <ul style="list-style-type: none">▪ Repairs▪ Tyres▪ Spares▪ Garage charges
<p>B. Running Charges/Variable Expenses</p> <ul style="list-style-type: none">▪ Petrol/Diesel▪ Oil▪ Grease	<p>D. Total Cost</p> <p>E. Total ton kilometers/passenger kilometers</p>

Electricity

- Power houses engaged in electricity generation or steam generation use **'Power House Costing.'** Operating cost statement can be prepared by identifying the costs associated with the **power generation** or **steam generation**. Cost unit is different for electricity generation and steam generation. For electricity generation, cost unit is **cost per kilowatt-hour** while for steam it is **lb**.

Hotels and

Canteens

- Operating costing can be used effectively in **hotels and canteens**. It is necessary to compute the cost in both the cases to find out the profit or loss at the end of a particular period. In this case, the costs associated with different products offered should be identified and cost per unit should be worked out. The cost unit may be **number of meals served** or any other **dish offered** to the customers.

Problems and

Solutions [11]

- A lodging home is being run in a small hill station with 50 single rooms. The home offers concessional rates during six off-season months in a year. During this period, half of the full room rent is charged. The management's profit margin is targeted at 20% of the room rent. The following are the cost estimates and other details for the year ending on 31st March 2006. [Assume a month to be of 30 days].

1. Occupancy during the season is 80% while in the off- season it is 40% only.
2. Expenses:
 - Staff salary [Excluding room attendants] \$2,75,000
 - Repairs to building \$1, 30, 500
 - Laundry and linen: \$40, 000
 - Interior and tapestry: \$87, 500
 - Sundry expenses: \$95, 400
1. Annual depreciation is to be provided for buildings @ 5% and on furniture and equipment @ 15% on straight-line basis.

4. Room attendants are paid \$5 per room day on the basis of occupancy of the rooms in a month.
 5. Monthly lighting charges are \$120 per room, except in four months in winter when it is \$30 per room and this cost is on the basis of full occupancy for a month.
 6. Total investment in the home is \$100 lakhs of which \$80 lakhs relate to buildings and balance for furniture and equipment.
- You are required to work out the room rent chargeable per day both during the season and the off-season months on the basis of the foregoing information

Solution: Before preparing statement of total estimated costs, some working notes will be required.

A. Computation of Estimated Cost for the year ending 31st March 2006

<u>Particulars</u>		<u>Amount \$</u>
Salary		2, 75, 000
Repairs		1, 30, 500
Laundry and linen		40, 000
Interior decoration		87, 500
Depreciation:		
5% on \$80 lakhs:	\$4, 00, 000	
15% on \$20 lakhs:	\$3, 00, 000	7, 00, 000
Miscellaneous expenses		95, 400
Total costs		13, 28, 400

B. Number of room days in a year:

- Occupancy during season for 6 months @ 80%
[50 X .80 X 6 X 30] = 7200
- Off-season occupancy for 6 months @ 40% [50 X .4 X 6 X 30] = 3600
- Total number of room **days** during a year = 10,800

C. Attendant's salary

- For 10,800 room days @ \$5 per day = \$54,000

D. Light charges for 8 months @ \$120 per month i.e.
\$120/30 = \$4 per room day

- Light charges for 4 months @ \$30 per month, i.e.
\$30/30 = Re.1 per room day

- Total lighting charges:
 - During season @ \$4 for 7200 days = **\$28, 800**
 - During off season 2 months @ \$4 for 1200 days
[$2/6 \times 3600$] = \$4, 800
 - During 4 months of winter @ \$1 for 2, 400 days
[$4/6 \times 3600$] = **\$2, 400**
 - Total lighting charges: **\$36, 000**
- Note: It is given in the example that during four months of winter, the lighting is \$30 per room, which is 1/4th of the lighting charges during the remaining period of the year. Hence, the rate of room day which is \$4 will also be 1/4th for winter period and so it is taken as \$.1 per room day.

Particulars	Amount \$
Expenses as shown in A above	13, 28, 400
Attendant's salary as shown in C above	54, 000
Lighting charges as shown in D above	36, 000
Total cost	14, 18, 400

Statement of Total Estimated Cost Computation of total Full Room Days

- During season: 7, 200
- Off-season: 1, 800 [Equivalent to 50% rate of 3, 600 days]
- Total Full Room Days: 9, 000

Computation of Room Rent

- Cost per room day: $\$14, 18, 400 / 9, 000 = \mathbf{\$157.60}$
- Add: Profit margin at 20% of rent or 25% of cost = \$39.40
- Room Rent = **\$197.00**

Thus, during season, room rent of \$197 is to be charged while in the off-season room rent of \$98.50 is to be charged