Revisionl Ppt on cma1- introduction

https://www.slideshare.net/lincypt/introduction-cost-management-accounting

PPt on job costing and contract costing

https://www.slideshare.net/ashwitha143/contract-and-job-costing

REVISIONAL SUMS ON SERVICE COSTING AND OUTPUT COSTING

1.Union Transport Company supplies the following details in respect of a truck of 5-tonne capacity:

Cost of truck	Rs. 90,000
Estimated life	10 years
Diesel, oil, grease	Rs. 15 per trip each way
Repairs and maintenance	Rs. 500 per month
Driver's wage	Rs. 500 per month
Cleaner's wage	Rs. 250 per month
Insurance	Rs. 4,800 per year
Tax	Rs. 2,400 per year
General supervision charges	Rs. 4,800 per year

The truck carries goods to and from city covering a distance of 50 miles each way.

While going to the city freight is available to the extent of full capacity.

Assuming that the truck runs on an average 25 days a month, work out:

(i) Operating cost per tonne-mile, and

(ii) Rate per ton per trip that the company should charge if profit of 50% on freightage is to be earned.

Solution

(i) **Operating Cost Statement**

	Rs.	Per month Rs.	Per tonne-mile Rs.
1. **Fixed Costs :**			
Driver's wage	500		
Cleaner's wage	250		
Insurance	400		
Taxes	200		
General supervision	400	1,750	0.233
2. **Running Costs :**			
Diesel oil, etc.	750		
Repairs & maintenance	500		
Depreciation	750	2,000	0.267
		3,750	
		7,500	0.500

(ii) **Calculation of Freight Rate**

Cost per ton-mile	Re. 0.50
Profit per ton-mile	Re. 0.50
Freight rate per ton-mile.	Re. 1.00

Freight rate per trip both ways = 300 × Re. 1.00 = Rs. 300

Tonne-miles are computed as under :

(50 × 5) + (50 × 1) × 25 = 7,500 tonne-mile.

Operating Costing Problem 2:

The Kangaroo Transport operates a fleet of Lorries. The records for lorry L-14 reveal the following information for September, 1990:

Days maintained	30	
Days operated	25	
Days idle	5	
Total hours operated	300	
Total kms covered	2,500	
Total tonnes carried	200	(4 tonne-load per trip, journey empty)

The following information is made available:

A. Operating costs for the month

Petrol Rs.400, oil Rs.170, grease Rs.90, wages to driver Rs.550, wages to khalasi Rs.350.

B. Maintenance costs for the month.

Repairs Rs.170, overhead Rs.60, Tyres Rs.150, Garage charges Rs.100.

C. Fixed costs for the month based on the estimates for the year : Insurance Rs.50, Licence, Tax etc. Rs. 80,

Interest Rs.40, other overheads Rs.190.

D. Capital costs:

Cost of acquisition Rs.54,000

Residual value at the end of 5 years life is Rs.36,000. Prepare a Cost Sheet and performance statement showing:

(a) Cost per day maintained;

(b) Cost per day operated ;

(c) Cost per kilometer;

(d) Cost per hour;

(e) Cost per commercial tonne

Solution

Cost Sheet for September 1990 (Lorry L–14)

	Rs.	Rs.
A. Operating Costs		
Petrol	400	
Oil	170	
Grease	90	
Wages to Driver	550	
Wages of khalasi	350	1,560
B. Maintenance Costs		
Repairs	170	
Overhand	60	
Tyres	150	
Garage charges	100	480
C. Fixed costs		
Insurance	50	
Licence, Tax etc.	80	
Interest	40	
Other overheads	190	360
D. Depreciation		
$\frac{\text{Rs. } 54,000 - \text{Rs. } 36,000}{5 \text{ years.}} = \text{Rs. } \frac{18,000}{5} = \text{Rs. } 3,600$		
$= \text{Rs. } 3,600 + 12$		300
Total Cost for the month.		2,700

Performance Statement :

(a) Cost per day maintained Rs. $\frac{2,700}{30}$ = Rs. 90

(b) Cost per day operated Rs. $\frac{2,700}{25 \text{ days}}$ = Rs. 108

(c) Cost per kilo-meter Rs. $\frac{2,700}{2,500}$ = Rs. 1.08

(d) Cost per hour Rs. $\frac{2,700}{300 \text{ hours}}$ = Rs. 9.00

(e) Commercial tonne-kms

Outward – 4tonnes × 25 dyas × 50 kms	= 5,000
Return = 0 × 25 × 50	nil
Total	5,000

Cost per commercial tonne-km Rs. $\frac{2,700}{5,000}$ = Re. 0.54

Operating Costing Problem 3:

Mr. Sohan Singh has started transport business with a fleet of 10 taxis. The various expenses incurred by him are given below:

(a) Cost of each Taxi Rs.75,000.

(b) Salary of Office staff Rs.1,500. p.m.

(c) Salary of garage staff Rs.2,000. p.m.

(d) Rent of garage Rs.1,000. p.m.

(e) Drivers salary (per taxi) Rs.400. p.m.

(f) Road Tax and Repairs per taxi Rs.2,160. p.a.

(g) Insurance premium @ 4% of cost p.a.

The life of a taxi is Rs.3,00,000 km. and at the end of which it is estimated to be sold at Rs.15,000. A taxi runs on an average 4,000 km. per litre of petrol costing Rs.6.30 per litre. Oil and other sundry expenses amount to Rs.10 per 100 km. Calculate the effective cost of running a taxi per kilometer. If the hire charge is Rs.1.80 per kilometer, find out the profit Mr. Sohan Singh may expect to make in the first year of operation.

Solution:

Hire charges earned in the 1st year of operation:

A taxi runs on an average 4,000 km. per month of which 20% it runs empty

i.e., effective running will be 3,000 km. per month.

(i.e., 4,000 – 20% of 4,000)

Hence, total hire charges earned in the 1st year on 10 Taxis = 3,200 x 12 months x 10 Taxis. = 3,84,000 km. at Rs.1.80 = Rs.6,91,200.

Statement of Operating of a Taxi per km.

	Particulars	*Basis of apportionment*		*Amount per month*	*per km.*
				Rs.	Rs.
A.	**Fixed Costs**				
	Salary of office staff	$\frac{1,500}{10}$	=	150.00	
	Salary of garage staff	$\frac{2,000}{10}$	=	200.00	
	Rent of garage	$\frac{1,000}{10}$	=	100.00	
	Driver's Salary	per taxi	=	400.00	
	Road Tax & Repairs	$\frac{2,160}{12}$	=	180.00	
	Insurance 4% of 75,000 =	3,000 ÷ 12	=	250.00	
				1,280.00	
	Total (A) :	1,280 ÷ 4,000	=	0.32	
B.	**Variable Costs :**				
	Depreciation	$\frac{75,000-15,000}{3,00,000 \text{ km.}}$	=	0.20	
	Petrol	$\frac{6.30}{9}$	=	0.70	
	Oil & Other Sundry Exp.	$\frac{10}{100}$	=	0.10	
	Total (B) :	...	=	1.00	
	Operating Cost per km. (A + B) :	0.32 + 1.00	=	1.32	
	Effective cost of running a taxi per km.	$1.32 \times \frac{4,000}{3,200}$	=	1.65	
	Operating cost per month per taxi =	4,000 × 1.32	=	5,280	
	Operating cost per annum per taxi =	5,280 × 12	=	63,360	
	Operating cost per annum for 10 Taxis =	63,360 × 10	=	6,33,600	
	Hire charges earned in 1st Year =		=	6,91,200	
	Profit in the first year of opeation :			57,600	
		Or			
	Operation cost per km.				
	effective running =	$1.32 \times \frac{4,000}{3,200}$	=	1.65	
	Hire charges per km.		=	1.80	
	Profit per km. (effective running)		=	0.15	
	Profit in 1st year = 3,84,000 effective km. at Rs. 0.15		=	57,600	

Operating Costing Problem 4:

Shanker has been promised a contract to run a tourist car on a 20 km. long mute for the chief executive of a multinational firm. He buys a car costing Rs.1,50,000. The annual cost of insurance and taxes are Rs. 4,500 and Rs.900

respectively. He has to pay Rs.500 per month for a garage where he keeps the car when it is not in use.

The annual repair costs are estimated at Rs.4,000. The car is estimated to have a life of 10 years, at the end of which the scrap value is likely to be Rs.50,000.

He hires a driver who is to be paid Rs.300 per month plus 10% of the takings as commission. Other incidental expenses are estimated at Rs.200 per month. Petrol and oil will cost Rs.100 per 100 kms. The car will make 4 round trips each day. Assuming a profit of 15% on takings is desired and that the car will be on the road for 25 days on an average per month what should he charge per round-trip?

Solution:

Working Notes:

1. Total km. in a month:

One Round Trip = 20 km. outward + 20 km. Inward = 40 km. Total km. = 40 km. x 4 x 25 days = 4,000 km.

2. No. of round trips in a month = 25 x 4 = 100.

3. Petrol & Oil will cost Rs.100 per 100 km. i.e., Re. 1 per one km.

Solution

Statement of Operating Cost

Particulars	*Basis of apportionment*	*Amount per month*	*per km.*
		Rs.	Rs.
A. **Standing Charges :**			
Depreciation	$\frac{1,50,000-50,000}{10}$	10,000	
Insurance		4,500	
Taxes		900	
Garage rent	500 × 12	6,000	
Annual repairs		4,000	
Driver's Salary	300 × 12	3,600	
Incidental exp.	200 × 12	2,400	
		31,400 ÷ 12	2,617
B. Variable Exp.			
Petrol & Oil.	4,000 km. × 1.00 per. km.		4,000
Total Cost (excluding Commission) A + B =			6,617
Total Takings = T			
Driver's Commission = 10% of T i.e., 0.10 T.			
Profit = 15% of T i.e., 0.15 T			

Driver's Commission + Profit = 0.10 T + 0.15 T = 0.25 T.

Total Takings per month = Total Cost + Driver's Commission + Profit.

T = 6,617 + 0.10 T + 0.15 T.

T = 6,617 + 0.25 T

T – 0.25 T = 6,617

0.75 T = 6,617 or T = Rs. 6,617 x 100/75

T = Rs.8, 822. 67 per month.

Charge per round trip = Rs.8,822.67/100 = Rs.88.23 say Rs.89.

Operating Costing Problem 5:

Mr. X owns a bus which runs according to the following schedule:

(i) Delhi to Chandigarh and back, the same day.

Distance covered: 150 kms. one way.

Number of days run each month: 8

Seating capacity occupied 90%.

(ii) Delhi to Agra and back, the same day.

Distance covered : 120 kms. one way.

Number of days run each month: 10

Seating capacity occupied 85%

(iii) Delhi to Jaipur and back, the same day.

Distance covered: 270 kms. one way.

Number of days run each month: 6

Seating capacity occupied 100%

(iv) Following are the other details :	Rs.	
Cost of the bus	6,00,000	
Salary of the driver	2,800	p.m.
Salary of the Conductor	2,200	p.m.
Salary of the part-time Accountant	200	p.m.
Insurance of the bus	4,800	p.m.
Diesel consumption 4 kms. per litre at	6	per litre
Road tax	1,500	p.a.
Lubricant oil	10	per 100 kms.
Permit fee	1,000	p.m.
Repairs and maintenance	315	p.m.
Depreciation of the bus		@ 20 % p.a.
Seating capacity of the bus		50 persons.

Passenger tax is 20% of the total takings. Calculate the bus fare to be charged from each passenger to earn a profit of 30% on total taking.

The fares are to be indicated per passenger for the journeys:

(i) Delhi to Chandigarh

(ii) Delhi to Agra

(iii) Delhi to Jaipur

Solution

Working Notes

1. *Total Running Kms. per month*

Place	*Distance (km.)*	*Trips per day*	*Days per month*	*Km. per month*
Delhi to Chandigarh	150	2	8	2,400
Delhi to Agra	120	2	10	2,400
Delhi to Jaipur	270	2	6	3,240
				8,040

2. *Passenger Km. per month*

Delhi to Chandigarh & back	=	50 seats × 90% × 2,400	=	1,08,000
Delhi to Agra & back	=	50 seats × 85% × 2,400	=	1,02,000
Delhi to Jaipur & back	=	50 seats × 100% × 3,240	=	1,62,000
				3,72,000

Solution

Operating Cost Statement (per month)

Particulars	*Basis of apportionment*	*Amount*	*Total*
		Rs.	Rs.
A. *Fixed Costs* :			
Salary of driver		2,800	
Salary of conductor		2,200	
Salary of Part-time Accountant		200	
Insurance	$\frac{4,800}{12}$ months	400	
Road Tax	$\frac{1,500}{12}$	125	
Permit Fee		315	
Repairs & Maintenance		1,000	
Depreciation	$\frac{6,00,000 \times 20}{100} \times \frac{1}{12}$	10,000	
Total A			17,040
B. *Variable Costs* :			
Diesel	$\frac{8,040 \times 6}{4}$	12,060	
Lubricant Oil	$\frac{8,040 \times 10}{100}$	804	
Total B			12,864
Total cost per month	A + B		29,904
Add : Passenger tax	20% of total takings		
Profit	30% of total takings		
	50% of total takings i.e. 100% of total cost (Note 1)	29,904	29,904
Total takings			59,808

Rate per passenger km = $\frac{\text{Rs. } 59,808}{3,72,000 \text{ passenger km.}}$ = 0.1607741.

i.e. Re. 0.161

Fare to be charged per passeenger :

					Rs.
(i)	Delhi to Chandigarh	=	150 × 0.161	=	24.15
(ii)	Delhi to Agra	=	120 × 0.161	=	19.32
(iii)	Delhi to Jaipur	=	270 × 0.161	=	43.47

Note : 1

			Rs.
	Total takings		59,808
Less :	Passenger tax = 20% of total takings	= 11,961.60	
	Profit = 30% of total takings	= 17,942.40	29,904
	Total Cost		29,904