

Managerial Accounting

Flexible Budget & ROI

Contoh Soal Flexible Budget

Orcas co. has cost budgets on the following data:

SOAL 1

Variable Overhead Costs:

Cleaning	\$60,5 per charter
Maintenance	\$35,25 per charter
Port fees	\$15,75 per charter

Fixed Overhead Costs:

Salaries and wages	\$9.150 per month
Depreciation	\$12.100 per month
Utilities	\$860 per month
Moorage	\$4.980 per month

In July, the following actual costs were incurred for 160 charters:

Cleaning	\$9.440
Maintenance	\$5.980
Port fees	\$2.670
Salaries and wages	\$9.200
Depreciation	\$12.800
Utilities	\$835
Moorage	\$5.360

Prepare flexible budget performance report for July??

Jawab:

	Cost formula	flexible budget	actual result	variance
Number of charters		160	160	
Cleaning	60,5Q	9.680 (60,5x160)	9.440	240 F
Maintenance	35,25Q	5.640 (35,25x160)	5.980	340 U
Port fees	15,75Q	2.520 (15,75x160)	2.670	150 U
Salaries and wages	9.150	9.150	9.200	50 U
Depreciation	12.100	12.100	12.800	700 U
Utilities	860	860	835	25 F
Moorage	4.980	<u>4.980</u>	<u>5.360</u>	<u>380 U</u>

Total expenses	44.930	46.285	1.355 U
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U=UNFAVORABLE/MERUGIKAN JIKA BIAYA AKTUAL>BIAYA BUDGET
 F=FAVORABLE/MENGUNTUNGAN, JIKA BIAYA AKTUAL<BIAYA BUDGET

SOAL 2

FILL IN THE MISSING DATA IN THE FLEXIBLE BUDGET!!

LAVAGE RAPIDE
 FLEXIBLE BUDGET (IN US\$)
 FOR THE MONTH ENDED AUGUST 31

OVERHEAD COST	COST FORMULA (PER CAR)	<u>ACTIVITY</u>		
		8.000	9.000	10.000
VARIABLE COSTS:				
CLEANING SUPPLIES	0,8	6.400	7.200	8.000
ELECTRICITY	0,3	2.400	2.700	3.000
MAINTENANCE	<u>0,2</u>	<u>1.600</u>	<u>1.800</u>	<u>2.000</u>
TOTAL VARIABLE COSTS	1,3	10.400	11.700	13.000
FIXED COSTS:				
OPERATOR WAGES		9.000	9.000	9.000
DEPRECIATION		6.000	6.000	6.000
RENT		<u>8.000</u>	<u>8.000</u>	<u>8.000</u>
TOTAL FIXED COSTS		23.000	23.000	23.000
TOTAL COSTS (VARIABLE+FIXED)		33.400	34.700	36.000

ACTUAL COSTS INCURRED FOR 8.900 CARS ARE AS FOLLOWS:

CLEANING SUPPLIES	\$7.080
ELECTRICITY	\$2.460
MAINTENANCE	\$1.550
OPERATOR WAGES	\$9.100
DEPRECIATION	\$7.200
RENT	\$8.000

PREPARE FLEXIBLE BUDGET PERFORMANCE REPORT??

Jawab:

FLEXIBLE BUDGET PERFORMANCE REPORT

ACTIVITY		BUDGET	ACTUAL	VARIANCE
		8.900	8.900	0
VARIABLE COSTS:				
CLEANING SUPPLIES	0,8	7.120	7.080	40 F

ELECTRICITY	0,3	2.670	2.460	210 F
MAINTENANCE	0,2	<u>1.780</u>	<u>1.550</u>	<u>230 F</u>
TOTAL VARIABLE COSTS	1,3	11.570	11.090	480 F
FIXED COSTS:				
OPERATOR WAGES		9.000	9.100	100 U
DEPRECIATION		6.000	7.200	1.200 U
RENT		<u>8.000</u>	<u>8.000</u>	<u>0</u>
TOTAL FIXED COSTS		23.000	24.300	1.300 U
TOTAL COSTS (VARIABLE+FIXED)		34.570	35.390	820 U

Contoh Soal Return on Investment (ROI)

SOAL 3

Jika investasi sebesar Rp10.000.000 menghasilkan penjualan sebesar Rp15.000.000, berarti diperoleh laba sebesar Rp5.000.000. Maka secara sederhana perhitungan ROI dalam presentase adalah

Jawab:

$$\text{ROI} = \frac{\text{Rp15.000.000} - \text{Rp10.000.000}}{\text{Rp10.000.000}}$$

$$\text{Rp10.000.000} \times 100\%$$

$$\text{ROI} = 50\%$$

SOAL 4

EXERCISE 13-7 Return on Investment (ROI) [LO2]

Provide the missing data in the following table for a distributor of martial arts products:

	Division		
	Alpha	Bravo	Charlie
Sales	\$?	\$11,500,000	\$?
Net operating income	\$?	\$ 920,000	\$210,000
Average operating assets	\$800,000	\$?	\$?
Margin	4%	?	7%
Turnover	5	?	?
Return on investment (ROI)	?	20%	14%

Jawab:

ALPHA=

$$\text{ROI} = \text{MARGIN} \times \text{TURNOVER} = 4\% \times 5 = 20\%$$

$$\text{ROI} = \text{NET OPERATING INCOME} / \text{AVERAGE OPERATING ASSET}$$

$$20\% = \text{NET OPERATING INCOME} / 800.000$$

$$\text{NET OPERATING INCOME} = 20\% \times 800.000 = 160.000$$

$$\text{MARGIN} = \text{NET OPERATING INCOME} / \text{SALES}$$

$$4\% = 160.000 / \text{SALES}$$

$$\text{SALES} = 160.000 / 4\% = 4.000.000$$

BRAVO=

$$\text{MARGIN} = \text{NET OPERATING INCOME} / \text{SALES}$$

$$\text{MARGIN} = 920.000 / 11.500.000 = 8\%$$

$$\text{ROI} = \text{MARGIN} \times \text{TURNOVER}$$

$$20\% = 8\% \times \text{TURNOVER}$$

$$\text{TURNOVER} = 20\% / 8\% = 2,5$$

$$\text{TURNOVER} = \text{SALES} / \text{AVERAGE OPERATING ASSET}$$

$$2,5 = 11.500.000 / \text{AVERAGE OPERATING ASSET}$$

$$\text{AVERAGE OPERATING ASSET} = 11.500.000 / 2,5 = 4.600.000$$

CHARLIE=

$$\text{ROI} = \text{MARGIN} \times \text{TURNOVER}$$

$$14\% = 7\% \times \text{TURNOVER}$$

$$\text{TURNOVER} = 14\% / 7\% = 2$$

MARGIN=NET OPERATING INCOME/SALES

7%=210.000/SALES

SALES=210.000/7%=3.000.000

TURNOVER=SALES/AVERAGE OPERATING ASSET

2=3.000.000/AVERAGE OPERATING ASSET

AVERAGE OPERATING ASSET=3.000.000/2=1.500.000

SOAL 5

EXERCISE 13-12 Return on Investment (ROI) and Residual Income Relations [LO2, LO3]

A family friend has asked your help in analyzing the operations of three anonymous companies operating in the same service sector industry. Supply the missing data in the table below:

	Company		
	A	B	C
Sales	\$9,000,000	\$7,000,000	\$4,500,000
Net operating income	\$?	\$ 280,000	\$?
Average operating assets	\$3,000,000	\$?	\$1,800,000
Return on investment (ROI)	18%	14%	?
Minimum required rate of return:			
Percentage	16%	?	15%
Dollar amount	\$?	\$ 320,000	\$?
Residual income	\$?	\$?	\$ 90,000

Jawab:

A:

ROI=NET OP.INCOME: AVERAGE OP.ASET

18%=NET OP.INCOME:3.000.000

NET OP.INCOME=18%X3.000.000=540.000

DOLLAR AMOUNT=PERCENTAGE X AVERAGE OP.ASSET

DOLLAR AMOUNT=16%X3.000.000=480.000

RESIDUAL INCOME=NET OP.INCOME-DOLLAR AMOUNT

$$\text{RESIDUAL INCOME}=540.000-480.000=60.000$$

B:

AVERAGE OP.ASSETS=NET OP.INCOME:ROI

$$\text{AVERAGE OP.ASSETS}=280.000:14\%=2.000.000$$

PERCENTAGE RATE RETURN= DOLLAR AMOUNT: AVERAGE OP.ASSETS:

$$\text{PERCENTAGE RATE RETURN}=320.000:2.000.000=16\%$$

$$\text{RESIDUAL INCOME}=280.000-320.000=(40.000)$$

C:

$$\text{DOLLAR AMOUNT}=15\% \times 1.800.000=270.000$$

NET OPERATING INCOME=RESIDUAL INCOME+DOLLAR AMOUNT

$$\text{NET OP.INCOME}=90.000+270.000=360.000$$

$$\text{ROI}=360.000:1.800.000=20\%$$