

Chapter 13

Analysis of Variances

The Budget Company has come up with a business plan for the coming year. They expect a sales and production quantity of 10,000 units. Based on a prognosis of labor and other costs the following full cost per unit is expected.

Labor	0.5hr * \$30 = \$15
Material	2kg * \$10 = \$20
Fixed cost	\$30
Total	\$65

The average sales price is expected to be \$90 per unit. The sales department is allowed to vary the price charged to different kind of customers.

At the end of the year the following results have been recorded:

- 11,000 units have been produced and sold. Total sales revenue was \$968,000
- 4,980 labor hours were recorded at a total cost of \$150,975
- 23,100 kg of material were used at a total cost of \$229,845
- The actual fixed cost turned out to be \$310,000

Give an analysis of variances in as much detail as possible to account for the difference in the budgeted and actual profit.

Solutions Analysis of Variances

Budget profit = $10,000 * (\$90 - \$65) = \$250,000$

Actual profit: $\$968,000 - \$150,975 - \$229,845 - \$310,000 = \$277,180$

Difference to explain: \$27,180

Variance	Working	Result (\$)
Sales price	$(\$88 - \$90) * 11,000$	(22,000)
Sales volume	$1,000 * (\$90 - \$35)$	55,000
Labor efficiency	$(5,500 - 4,980) * \$30$	15,600
Labor price	$(\$30 - \$30.31) * 4,950$	(1,575)
Material efficiency	$(22,000 - 23,100) * \$10$	(11,000)
Material price	$(\$10 - \$9.95) * 23,100$	1,155
Fixed cost	$\$300,000 - \$310,000$	(10,000)
Total		27,180