

# MEASURING PLANNING

RELEVANT TO ACCA QUALIFICATION PAPER F5

TABLE 1: SAMPLE DATA

	Ex-ante Original budget	Ex-poste Revised budget	Actual
Material price	\$5/kg	\$4.85/kg	\$4.75/kg
Material used	10kg per unit	9.5kg per unit	108,900kg (Note 1)
Budget production	10,000 units		
Actual production			11,000 units

As examiner for Paper F5, I have been asked, on occasion, what I think is the best way to measure planning variances. There are many ways; this article outlines my preferred methodology.

The actual material used has most often been presented (in past exams by other examiners) as a total figure. There would then be a figure given for actual production – as is the case above. Candidates should not be put off by this.

In Paper F5, all my past questions have been based on a scenario, and, if this continues, then the data given in **Table 1** would be presented as part of the scenario, rather than as a table, to give a context for the question. Students, therefore, need to be able to read and interpret straightforward statements. For example, the above data could be presented as follows:

*Lowland Skiing had planned, when it originally produced its budget, to buy its artificial snow for \$5/ per kg. However, due to subsequent improvements in technology, manufacturers around the world reduced their prices to \$4.85 per kg. This latter figure is now considered to be a fair target price for the purpose of performance assessment for the budget period. The actual price paid was \$4.75, as the Lowland*

*Skiing buying department negotiated strongly for a better price.*

Students should be able to deduce that an improvement in technology is outside the control of Lowland Skiing and is, by nature, a planning ‘error’. Equally, the better negotiation of a price should be recognised as an operational issue. Simple interpretation is not considered beyond the scope of Paper F5 students, but it is often clear to me that many students fail to understand what they are doing. When studying, trainees need to ensure they realise why something is being done, not just what it is.

Let’s return to the calculations in the question. Planning variances are measured by comparing original budget figures with revised figures. The question I am often asked concerns the issue of the production level being applied.

Without going into excessive explanation, I prefer using the actual production level as the activity level used to calculate the planning variances. I feel that in a changing world, where budget volumes of activity can differ greatly from actual activity levels achieved, then using actual activity levels (to calculate the variances) better explains the effect an

# VARIANCES

error has had on the business (rather than on the budget). The calculations are as follows.

Material price planning variance:  $(4.85 - 5) \times 11,000 \times 9.5 = 15,675 \text{ FAV}$

In this way, the error in the budget for price is being evaluated to show the effect it has had on the business – given that it produced 11,000 units. The effect on the original budget (based on 10,000 units) could also be calculated, and is a valid piece of managerial data:

Material usage planning variance:  $((9.5 \times 11,000) - (10 \times 11,000)) \times 5 = 27,500 \text{ FAV}$

Equally, the error in the estimate for the usage to be used has been evaluated to show the effect it has had on the business – given that it has produced 11,000 units. The total planning error is thus \$15,675 FAV + \$27,500 FAV, or \$43,175 FAV in total. This is a provable figure, as it is the difference between the ex-poste and the ex-ante budget both flexed for actual production levels.

Ex-poste budget as flexed =  
 $5 \times 10 \times 11,000 = \$550,000$   
 Ex-ante budget as flexed =  
 $4.85 \times 9.5 \times 11,000 = \$506,825$

The difference is \$43,175

Operational variances compare the differences between actual and revised budget figures. The calculations here are less controversial:

Material price operational variance:  $(4.75 - 4.85) \times 108,900 = 10,890 \text{ FAV}$

Material usage operational variance:  $(108,900 - (9.5 \times 11,000)) \times 4.85 = 21,340 \text{ ADV}$

The total operational variance is \$10,450 ADV.

Again, both these variances have been calculated based on actual levels of activity. It is possible to reconcile the total planning variance (\$43,175 FAV) and the total operational variance (\$10,450 ADV) as \$32,725 FAV, thus:

Actual spend:	$108,900 \times 4.75 =$	\$517,275
Flexed budget spend:		
$(5 \times 10 \times 11,000) =$		\$550,000
Total variance		\$32,725 FAV

Now comes the matter of interpretation of the data. The key issue is that operational variances are the only variances within the control of the managers, so performance must be assessed with only these figures in mind. The material buyer has clearly done well by negotiating a price reduction beyond the market fall. One might question the validity of the revised price as it is a common manipulation to leave the revised price at a level whereby favourable operational variances can still be achieved. The concern might be about the quality of the snow, as the usage variance is adverse (perhaps indicating the snow fails to cover the ground as well as previous versions, and so more is needed). Indeed, given the adverse usage variance is bigger than the favourable price variance, we could conclude that overall the performance is quite poor. A performance manager cannot appraise variances in isolation from each other.

**Geoff Cordwell is examiner for Paper F5**

I HAVE ENSURED THAT BOTH THE OFFICIAL TEXTBOOKS SHOW THE CALCULATIONS AS PRESENTED IN THIS ARTICLE, SO THERE SHOULD BE NO DOUBT AS TO THE PREFERRED APPROACH.