



## **Standard Costing – Objectives and Application**

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### **Introduction**

Standard Costing is a significant element of the Professional 1 Managerial Finance syllabus. As the Examiner in this subject I have discerned that some students have lacked a satisfactory understanding of the objectives, processes and common computations in the area of standard costing. The object of this article is to assist students in developing their competence in the application of standard costing.

### **Standard Costing**

Standard Costing is a management tool that is used in organisations to improve many key management processes including:

- Understanding and determining unit costs
- Arriving at cost plus prices
- Budgeting revenues, costs and expected profits/contribution
- Planning resource inputs such as direct materials and direct labour
- Reporting performance
- Controlling performance variances

### **Steps in Standard Costing**

- 1) Determining standard costs for the unit. This is achieved by reviewing in detail the processes and inputs that are required to produce a unit.
- 2) Agreeing the budgeted sales price of each unit. This may be determined by using the standard cost per step 1 as the baseline for cost plus mark up based pricing.
- 3) Preparing budgets for each budgetary period (normally one year), which are typically broken down into shorter term budgets (normally monthly). This aids the short term control.
- 4) Recording actual costs and revenues for each short term control cycle.
- 5) Preparing an operating statement that reconciles the actual and budgeted cost/profit for each control cycle. The differences will be reported as variances.
- 6) Investigate the reasons for the occurrence of significant variances.
- 7) Identify and agree the control actions required to correct adverse variances and accentuate favourable variances.
- 8) Implement and monitor the results of the control actions instituted per step 7.

The following technical issues that need to be considered when approaching a standard costing examination question;

- There are many different approaches to calculating variances e.g. formulae, grids etc. For examination purposes all methods are acceptable
- The operating statement should reconcile the actual and budgeted profit/contribution for the period being reported on.
- There is no Fixed Overhead Volume Variance with standard marginal costing. The formula for the calculation of the sales volume variance differs depending on whether standard marginal or absorption costing is employed.
- The explanation of variances may reveal interdependencies e.g. an adverse sales price variance may help explain a favourable sales volume variance (as the price may have been reduced as a deliberate strategy to achieve increased sales volumes)

### **Illustrated Example**

This example is used to illustrate the basic presentation and technical calculations required in relation to a relatively uncomplicated standard costing question.

### **Connection Limited**

Connection Limited is an Irish based company that produced camera accessories. Their most recently developed product is a lens used to improve the depth of the images captured. The product was launched in September 2010 with October 2010 being its first meaningful month in terms of production and sales.

Connection Limited employs a system of standard absorption costing. The standard cost card for the new lens product is as follows:

### **Connection Limited**

#### **Standard Cost Card – Camera Lense**

<b>Details</b>	<b>€</b>
Selling Price	400
<b>Costs</b>	
Direct Materials (2 oz plastic @ €40 per oz)	80
Direct Labour (1 hour @ €20 per hour)	20
Variable Overhead (1 hour @ €8 per hour)	8
Fixed Overhead (1 hour @ €20 per hour)	20
Standard Cost Per Lense	<u>128</u>
<b>Standard Profit Per Lense</b>	<u><b>272</b></u>

The company budgeted to produce and sell 3,000 lenses during the month ended October 2010.

The actual profit statement for the camera lens product for the month of October 2010 reads as follows;

**Connection Limited**

**Actual Results - October 2010**

<b>Details</b>	<b>€</b>	<b>€</b>
Sales Revenues (2,000 lenses)		900,000
<b>Costs</b>		
	-	
Direct Materials (4,400 oz)	167,200	
Direct Labour (1,800 hours)	-43,200	
Variable Overhead	-18,000	
Fixed Overhead	-40,000	
Total Costs		<u>-268,400</u>
<b>Actual Profit for October 2010</b>		<u><b>631,600</b></u>

**REQUIRED**

Present an operating statement (with supporting calculations) which reconciles the actual and budgeted profit for the camera lens product.

**Suggested Solution**

**Connection Limited - Operating Statement - Month Ended October 2010**

<b>Details</b>	<b>Note</b>	<b>Variances</b>		<b>Total</b>
		<b>Favourable</b>	<b>Adverse</b>	
		<b>€</b>	<b>€</b>	<b>€</b>
<b>Budgeted Contribution</b>	1			<b>816,000</b>
<b>Variances</b>				
Sales Price	2	100,000		
Sales Volume	3		-272,000	
Direct Materials Price	4	8,800		
Direct Materials Usage	5		-16,000	
Direct Labour Rate	6		-7,200	
Direct Labour Efficiency	7	4,000		
Variable Overhead Expenditure	8		-3,600	
Variable Overhead Efficiency	9	1,600		
Fixed Overhead Expenditure	10	20,000		
Fixed Overhead Volume	11		-20,000	
Sub Totals		134,400	-318,800	
Net Variance				<u>-184,400</u>
<b>Actual Profit</b>				<u><b>631,600</b></u>

## Connection Limited : Supporting Notes

### Note 1) Budgeted Profit

Budgeted Unit Sales \* Standard Profit Per Unit  
 $3,000 * €272 = €816,000$

### Note 2) Sales Price Variance

(Actual Unit Price - Budgeted Unit Price ) \* Actual Units Sold  
 $€(450 - 400) * 2,000 = €100,000$  Favourable

### Note 3) Sales Volume Variance

(Actual Units Sold - Budgeted Unit Sales ) \* Standard Profit Per Unit  
 $(2,000 - 3,000) * €272 = €272,000$  Adverse

### Note 4) Direct Materials Price Variance

(Standard Unit Cost - Actual Unit Cost ) \* Actual Units Purchased  
 $€(40 - 38) * 4,400 = €8,800$  Favourable

### Note 5) Direct Materials Usage Variance

(Standard Unit Usage (for the actual level of production)- Actual Units Used) \* Standard Cost Per Unit  
 $(4,000 - 4,400) * €40 = €-16,000$  Adverse

### Note 6) Direct Labour Rate Variance

(Standard Hourly Rate - Actual Rate Per Hour ) \* Actual Hours Worked  
 $€(20 - 24) * 1,800 = €-7,200$  Adverse

### Note 7) Direct Labour Efficiency Variance

(Standard Hours (for the actual level of production)- Actual Hours Worked) \* Standard Rate Per Hour  
 $(2,000 - 1,800) * €20 = €4,000$  Favourable

### Note 8) Variable Overhead Expenditure Variance

(Standard Hourly Cost - Actual Cost Per Hour ) \* Actual Hours Worked  
 $4(8 - 10) * 1,800 = €3,600$  Adverse

### Note 9) Variable Overhead Efficiency Variance

(Standard Hours (for the actual level of production)- Actual Hours Worked) \* Standard Cost Per Hour  
 $(2,000 - 1,800) * €8 = €1,600$  Favourable

### Note 10) Fixed Overhead Expenditure Variance

(Budgeted Fixed Overhead - Actual Fixed Overhead)  
 $€(60,000 - 40,000) = €20,000$  Favourable

### Note 11) Fixed Overhead Volume Variance

(Budgeted Production Units - Actual Units Produced) \* FOH Absorbed per unit  
 $(3,000 - 2,000) * €20 = €20,000$  Adverse

**Conclusion**

Having studied this article and worked through the illustrated example students will ideally appreciate the objectives and steps in standard costing and present professionally accurate operating statement reconciliations.