

F5 June 2009 Question 3

- 3 Crumbly Cakes make cakes, which are sold directly to the public. The new production manager (a celebrity chef) has argued that the business should use only organic ingredients in its cake production. Organic ingredients are more expensive but should produce a product with an improved flavour and give health benefits for the customers. It was hoped that this would stimulate demand and enable an immediate price increase for the cakes.

Crumbly Cakes operates a responsibility based standard costing system which allocates variances to specific individuals. The individual managers are paid a bonus only when net **favourable** variances are allocated to them.

The new organic cake production approach was adopted at the start of March 2009, following a decision by the new production manager. No change was made at that time to the standard costs card. The variance reports for February and March are shown below (Fav = Favourable and Adv = Adverse)

Manager responsible	Allocated variances	February Variance \$	March Variance \$
Production manager	Material price (total for all ingredients)	25 Fav	2,100 Adv
	Material mix	0	600 Adv
	Material yield	20 Fav	400 Fav
Sales manager	Sales price	40 Adv	7,000 Fav
	Sales contribution volume	35 Adv	3,000 Fav

The production manager is upset that he seems to have lost all hope of a bonus under the new system. The sales manager thinks the new organic cakes are excellent and is very pleased with the progress made.

Crumbly Cakes operate a JIT stock system and holds virtually no inventory.

Required:

- (a) **Assess the performance of the production manager and the sales manager and indicate whether the current bonus scheme is fair to those concerned.** (7 marks)

In April 2009 the following data applied:

Standard cost card for one cake (not adjusted for the organic ingredient change)

Ingredients	Kg	\$
Flour	0.10	0.12 per kg
Eggs	0.10	0.70 per kg
Butter	0.10	1.70 per kg
Sugar	0.10	0.50 per kg
Total input	0.40	
Normal loss (10%)	(0.04)	
Standard weight of a cake	0.36	
Standard sales price of a cake		0.85
Standard contribution per cake after all variable costs		0.35

The budget for production and sales in April was 50,000 cakes. Actual production and sales was 60,000 cakes in the month, during which the following occurred:

Ingredients used	Kg	\$
Flour	5,700	\$741
Eggs	6,600	\$5,610
Butter	6,600	\$11,880
Sugar	4,578	\$2,747
Total input	23,478	\$20,978
Actual loss	(1,878)	
Actual output of cake mixture	21,600	
Actual sales price of a cake		\$0.99

All cakes produced must weigh 0.36 kg as this is what is advertised.

Required:

- (b) Calculate the material price, mix and yield variances and the sales price and sales contribution volume variances for April. You are not required to make any comment on the performance of the managers.

(13 marks)

(20 marks)

3 Crumbly Cakes

(a) Production manager

Assessing the performance of the two managers is difficult in this situation. In a traditional sense the production manager has seriously over spent in March following the move to organic ingredients. He has a net adverse variance against his department of \$2,300 in one month. No adjustment to the standards has been made to allow for the change to organic.

The manager has not only bought organically he has also changed the mix, increasing the input proportion of the more expensive ingredients. This may have contributed to the increased sales of cakes.

However, the decision to go organic has seen the sales of the business improve. We are told that the taste of the cakes should be better and that customers could perceive a health benefit. However, the production manager is allocated none of the favourable sales variances that result. If we assume that the improved sales are entirely as a result of the production manager's decision to change the ingredients then the overall net favourable variance is \$7,700.

The production manager did appear to be operating within the original standard in February, indicating a well performing department. Indeed he will have earned a small bonus in that month.

Sales manager

A change to organic idea would need to be 'sold' to customers. It would presumably require a change of marketing and proper communication to customers. The sales manager would probably feel he has done a good job in March. It is debatable, however, whether he is entirely responsible for all of the favourable variances.

The move to organic certainly helped the sales manager as in February he seems to have failed to meet his targets.

Bonus scheme

The problem here is that the variances have to be allocated to one individual. The good sales variances have been allocated to the sales manager when in truth the production manager's decision to go organic appears to have been a good one and the driver of the business success. Responsibility accounting systems struggle to cope with 'joint' success stories, refuting in general a collective responsibility.

Under the current standards the production manager has seemingly no chance to make a bonus. The main problems appear to be the out-of-date standards and the fact that all sales variances are allocated to the sales manager, despite the root cause of the improved performance being at least in part the production manager's decision to go organic. The system does not appear fair.

General comments

It would appear that some sharing of the total variances is appropriate. This would be an inexact science and some negotiation would be needed.

One problem seems to be that the original standards were not changed following the decision to go organic. In this sense the variances reported are not really 'fair'. Standards should reflect achievable current targets and this is not the case here.

(b) Variance calculations

Material price variances

Ingredient	Act price/kg	Std price/kg	Actual quantity kg	(AP – SP) x AQ MPV	Adv or Fav
Flour	0.13	0.12	5,700	57	Adv
Eggs	0.85	0.70	6,600	990	Adv
Butter	1.80	1.70	6,600	660	Adv
Sugar	0.60	0.50	4,578	458	Adv
Total				<u>2,165</u>	Adv

Material mix variance

Ingredient	Act mix	Std mix	Std price	Variance	Adv or Fav
Flour	5,700	5,870	0.12	-20	
Eggs	6,600	5,870	0.70	511	
Butter	6,600	5,870	1.70	1,241	
Sugar	4,578	5,870	0.50	-646	
Totals	<u>23,478</u>	<u>23,478</u>		<u>1,086</u>	Adv

Material yield variance

Actual yield	60,000 cakes
Standard yield (23,478/0.4)	58,695 cakes
Difference	1,305 cakes
Standard cost of a cake (W1)	\$0.302
Yield variance (1,305 * 0.302)	394 Fav

Sales price variance

	Act price	Std Price	Act volume	(AP – SP) * Act Vol Variance	Adv or Fav
Cake	0.99	0.85	60,000	8,400	Fav

Sales volume contribution variance

Actual volume	60,000 cakes
Budget volume	50,000 cakes
Standard contribution	0.35
Variance (60,000 – 50,000) * 0.35 –	\$3,500 Fav

W1

Standard cost of a cake

Ingredients	Kg	\$	Cost
Flour	0.10	\$0.12 per kg	0.012
Eggs	0.10	\$0.70 per kg	0.070
Butter	0.10	\$1.70 per kg	0.170
Sugar	0.10	\$0.50 per kg	0.050
Total input	0.40		0.302
Normal loss (10%)	<u>(0.04)</u>		
Standard weight/cost of a cake	0.36		0.302

	Marks	Marks
3 (a) Production manager assessment	2	
Sales manager assessment	2	
Bonus scheme comment	3	
		7
(b) Price variance	3	
Mix variance	3	
Yield variance	3	
Sales price variance	2	
Sales volume variance	2	
		13
Total		20