BOSTON CREAMERY, INC.†

Frank Roberts, Vice President for Sales and Marketing of the Ice Cream Division of Boston Creamery, was pleased when he saw the final earnings statement for the division for 1973 (see Exhibit 1 and Table 3). Only the year before, the company had installed a new financial planning and control system. This was the first year that figures comparing budgeted and actual results were available. Jim Peterson, president of the division, had asked Frank to make a short presentation at the next management meeting commenting on the major reasons for the favorable operating income variance of $71,700. Peterson said he wanted to illustrate to the management group how an analysis of the profit variance could highlight those areas needing corrective attention as well as those deserving a pat on the back while keeping in mind the Chairman's remarks during the last review meeting: *"A good control system is the one that separately identifies controllable and uncontrollable variances and links them to the concerned responsibility centres."*

The Profit Plan for 1973

The management group of the Ice Cream Division had prepared the following profit plan for 1973 (Table 1):

TABLE 1 Original Profit Plan for 1973

	Standard Contribution Margin/Gallon	*Forecasted Gallon Sales*	*Forecasted Standard Contribution Margin*
Vanilla	$.4329	2,409,854	$1,043,200
Chocolate	.4535	2,009,061	911,100
Walnut	.5713	48,883	28,000
Buttercrunch	.4771	262,185	125,000
Cherry Swirl	.5153	204,774	105,500
Strawberry	.4683	628,560	294,400
Pecan Chip	.5359	157,012	84,100
Total	**$.4530**	**5,720,329**	**$2,591,300**
	Breakdown of Budgeted Total Expenses		
	Variable Costs	*Fixed Costs*	*Total*
Manufacturing	$5,888,100	$ 612,800	$6,500,900
Delivery	187,300	516,300	703,600
Advertising	553,200	-	553,200
Selling	-	368,800	368,800
Administrative	-	448,000	448,000
Total	**$6,628,600**	**$1,945,900**	**$8,574,500**
	Recap		
	Sales	$9,219,900	
	Variable Cost of Sales	6,628,600	
	Contribution Margin	2,591,300	
	Fixed Costs	1,945,900	
	Income from Operations	$ 645,400	

† Adapted from the case published in "Management Control Systems", 10th Edition, by Anthony & Govindrajan. For restricted circulation only.

Based on an anticipated overall ice cream market of about 11,440,000 gallons in their marketing area and a market share of 50 percent, forecasted overall gallon sales were 5,720,329 for 1973.

Actual Results for 1973

By the spring of 1973 it had become clear that sales volume for 1973 was going to be higher than forecasted. In fact, actual sales for the year totaled 5,968,366 gallons, an increase of 248,037 gallons over budget. Market research data indicated that the total ice cream market in their marketing area was 12,180,000 gallons for the year as opposed to the budgeted figure of about 11,440,000 gallons.

A revised profit plan for the year at the actual volume level is given in Table 2.

TABLE 2 Revised Profit Plan for 1973

	Standard Contribution Margin/Gallon	*Revised Gallon Sales*	*Revised Standard Contribution Margin*
Vanilla	$.4329	2,458,212	$1,064,200
Chocolate	.4535	2,018,525	915,400
Walnut	.5713	50,124	28,600
Buttercrunch	.4771	268,839	128,300
Cherry Swirl	.5153	261,240	134,600
Strawberry	.4683	747,049	349,800
Pecan Chip	.5359	164,377	88,100
Total	**$.4539**	**5,968,366**	**$2,709,000**
Breakdown of Budgeted Total Expenses			
	Variable Costs	*Fixed Costs*	*Total*
Manufacturing	$6,113,100	$ 612,800	$6,725,900
Delivery	244,500	516,300	760,800
Advertising	578,700	-	578,700
Selling	-	368,800	368,800
Administrative	-	448,000	448,000
Total	**$6,936,300**	**$1,945,900**	**$8,882,200**

Recap

Sales	$9,645,300
Variable Cost of Sales	6,936,300
Contribution Margin	2,709,000
Fixed Costs	1,945,900
Income from Operations	$ 763,100

The fixed costs in the revised profit plan are the same as in the original plan, $1,945,900. The variable costs, however, have been adjusted to reflect the actual volume level of 5,968,366 gallons instead of the forecasted volume of 5,720,329 gallons.

Analysis of the 1973 Profit Variance

Exhibit 1 is the earnings statement for the division for the year. The figures for the month of December have been excluded for purposes of this case. Exhibit 2 is the detailed expense breakdown for the manufacturing department. The detailed expense breakdowns for the other departments have been excluded for purposes of this case.

Three days after Jim Peterson asked Frank Roberts to pull together a presentation for the management committee analyzing the profit variance for 1973, Frank came into Jim's office to review his first draft. He showed Jim the schedule shown in Table 3.

TABLE 3 Variance Analysis

Favorable variance due to sales:		
Volume	$117,700F	
Price[a]	12,000F	$129,700F
Unfavorable variance due to operations:		
Manufacturing	$ 99,000U	
Delivery	54,000F	
Advertising	29,000U	
Selling	6,000F	
Administration	10,000F	58,000U
Net variance-favorable		$ 71,700F
[a]This price variance is the difference between the actual sales value of the gallons actually sold and the standard sales value ($9,657,300 - $9,645,300)		

Frank said that he planned to give each member of the management committee a copy of this schedule and then to comment briefly on each of the items. Jim Peterson said he thought the schedule was okay as far as it went, but that is just didn't give any further break-up of variances or indicated the real cause for the favorable overall variance and also did not highlight things in a manner which indicated what corrective actions should be taken in 1974. In support, he mentioned two things: (a) it was the company policy that any increase/decrease in raw material prices is notified to the Marketing department in order to recover the same by increasing/decreasing the selling prices, and (b) the primary reason for the increase in labor for cartonizing and freezing and decrease in delivery cost was a change during the year to a new daily truck loading system as introduced by the President of the company (See Exhibit 2). He suggested that Frank call on John Vance, the corporate controller, if he needed some help in the mechanics of breaking out different variances.

As Frank Roberts returned to his office, he considered Jim Peterson's suggestion of getting John Vance involved in revising the variance report. Frank did not want to consult John Vance unless it was absolutely necessary because he thought Vance always went overboard on the technical aspects of any accounting problem. Frank couldn't imagine a quicker way to put people to sleep than to throw one of Vance's number-filled six-page memos at them. Jim Peterson specifically wants a non-technical presentation, Frank thought to himself, and that rules out John Vance. Besides, he thought, you don't have to be a CPA to focus on the key variance areas from a general management viewpoint.

The next day Frank Roberts learned that his counterpart, John Parker, Vice President for Manufacturing and Operations, had seen the draft variance report (Table 3) and was very unhappy about it. Roberts and Parker were the only two vice presidents in the division. Parker had apparently told Jim Peterson that he felt Roberts was "playing games" with the numbers to make himself look good at Parker's expense. Organizationally, Sales, Marketing and Advertising reported to Roberts, and Manufacturing, Delivery and Administration to Parker.

Required

Evaluate the performance of the company using variance analysis and identify causes of operating income variance of $71,700F as per Table 3.

EXHIBIT 1 Earnings Statement

ICE CREAM DIVISION Earnings Statement December 31, 1973				
Month			**Year-to-Date**	
Actual	*Budget for Actual*		*Actual*	*Budget for Actual*
		Sales-net	$9,657,300	
		Manufacturing cost (Exhibit 2)	6,824,900	
		Delivery*	706,800	
		Advertising*	607,700	
		Selling*	362,800	
		Administrative*	438,000	
		Total Expenses	$8,940,200	
		Income from Operations	$ 717,100	

* Further details are not given in this case.

Case continued on the next page

EXHIBIT 2 Expense Breakdown

ICE CREAM DIVISION Manufacturing Cost of Goods Sold December 31, 1973				
Month			Year-to-Date	
Actual	Budget for Actual		Actual	Budget for Actual
		Variable Costs:		
		Dairy ingredients	$3,679,900	$3,648,500
		Milk price variance	57,300	-
		Sugar	599,900	596,800
		Sugar price variance	23,400	-
		Flavoring (Including fruits and nuts)	946,800	982,100
		Cartons	567,200	566,900
		Plastic wrap	28,700	29,800
		Additives	235,000	251,000
		Supplies	31,000	35,000
		Miscellaneous	3,000	3,000
		Sub total	$6,172,200	$6,113,100
		Fixed Costs:		
		Labor-cartonizing and freezing*	$ 425,200	$ 390,800
		Labor-other	41,800	46,000
		Repairs	32,200	25,000
		Depreciation	81,000	81,000
		Electricity and water	41,500	40,000
		Spoilage	31,000	30,000
		Subtotal	$ 652,700	$ 612,800
		Total	$6,824,900	$6,725,900

*The primary reason for the increase in labor for cartonizing and freezing and decrease in delivery cost was a change during the year to a new daily truck loading system.

Before: Every morning, each route sales delivery driver loads the truck from inventory, based on today's sales orders, before leaving the plant. Drivers spend up to 2 hours each day loading the truck before they can begin their sales route.

After: Carton handling workers sort daily production each day onto pallets grouped by delivery truck, based on tomorrow's sales orders. This substitutes lower cost factory labor for higher cost driver labor for loading the trucks and also frees up some driver time each day for more customer contact and point of sale merchandising.