Practice Case 3 (Juice Producer)

Question

A major producer of juice is in the business of processing and packaging fruit juice for retail outlets. Traditionally, the producer has packaged the juice in 18-ounce carton containers. Recently, in response to demand from the market, the producer purchased a machine that packages the juice in plastic gallons (36 ounces). Over the next couple of years, sales continued to grow on average of 20% per year. Yet, as sales continued to increase, profits steadily decreased. The owner cannot understand why. He hires you to help out.

Recommended Solution

High Level Plan of Attack

- We know that sales have been increasing, so revenue is not an issue. The problem must be costs.
- Because of the change in packaging, the producer has incurred additional costs that are not accounted for, causing profits to decline.

Lay Out Your Thoughts

- Use the profitability framework. Gather information on the revenue side, but focus mostly on the cost side.

Dig Deeper: Gather Facts/Make Calculations

- Looking at the revenue side, how much did the producer charge for the 18 oz. carton? *$2.00 per container.*
- For the 36 oz. plastic gallons? *For twice the size, the producer figured he would provide an incentive to buy by selling them at $3.50 per gallon.*
- How was the cost of the new equipment accounted for in the price? *The producer ended up raising prices across the board by $.50 on all packages, both cartons and gallons, selling at* $2.50 *and $4.00, respectively.*
- What about cost of packaging? Does it cost the same to package the juice in cartons as it does in gallons? *Well, I guess not. Plastic is more expensive than the paper carton we have traditionally used. Also, we had to hire more experienced labor to operate the machine because it is a little more complicated than the carton machine. We figured that because the demand was higher for the gallons – we would cover our costs through increased volume.*
- What about overhead costs? *All costs for the factory are added together and divided by the number of units produced.*
    - This should raise alarm bells. This is now clearly an issue of cost allocation. The price on the plastic gallons should be higher due to higher costs. Now you need to see to what extent this is affecting the bottom line.

- Let's try to understand the trend in sales. What percentage of gallons versus cartons is sold? *The more our customers notice the gallons, the more they like them. As the overall volume is increasing, plastic gallons have comprised 60% of the sales. The owner has been very pleased about that.*
- It seems to me that it costs more to package in the gallons, yet the price is not higher on a per ounce basis. In fact, it's lower. Have you done any proper cost allocation to determine which type of product should carry which costs? *No, we haven't.*

Key Findings

- The major finding in this case is the additional costs associated with the plastic gallons were averaged out over all units, including cartons. This resulted in a misallocation of costs and inappropriate pricing.
- The plastic gallon products have been priced at a lower rate than they should have been. Result: the more gallons the juice producer sold, the more profit the company lost out on.

Recommendations

- This firm should conduct a thorough analysis of activity based costing to determine the overhead costs and direct costs associated with each item in the product line. They should then use this data to price accordingly.