

“MONTCLAIR PAPER MILL'S EXPERIMENT WITH TARGET COSTING” – A CASE STUDY

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Abstract:

Target Costing is a disciplined process for determining and realizing a total cost at which a proposed product with specified functionality must be produced to generate the desired profitability at its anticipated selling price in the future. CIMA defines target cost as “a product cost estimate derived from a competitive market price. Target Costing is a disciplined process that uses data and information in a logical series of steps to determine and achieve a target cost for the product. In addition, the price and cost are for specified product functionality, which is determined from understanding the needs of the customer and the willingness of the customer to pay for each function. Target costing is a formal process that attempts to match a proposed product's features/benefits with a viable market price that achieves the company's profitability goals.

KEYWORDS:

Montclair Paper , organization , management , Manufacturing management .

INTRODUCTION

Target costing affects profitability of an organization depending on the commitment of management to its use, the constant involvement of cost accountant in all phases of a product's life cycle, and the type of strategy the organization follows. Target costing improves profitability in two ways. First it places a detailed continuing emphasis on product costs through out the life cycle of every product. The management team is completely aware of costing issues since it receives regular reports from the cost accounting members of all design teams. Second, it improves profitability through precise targeting of the correct prices at which the company feels it can place a profitable product in the market place that will sell in a robust manner. This is opposed to the more common cost-plus approach under which a company makes a product, determines its cost, adds profit to cost and then does not understand why its resoundingly high price does not attract buyers. Thus, target costing results not only in better-cost control but also in better price control. A company's strategy can also have its impact on profitability. If it constantly issues a stream of new products, or if its existing product lines are subject to severe pressures, it must adapt target costing a central part of its strategy so that the correct prices are used for products and actual costs match those originally planned.

CASE STUDY:- “MONTCLAIR PAPER MILL'S”

Montclair Paper Mill 1 is the oldest and smallest of the ten paper mills. The mill's huge paper machines are some of the oldest in the industry but being well maintained they still run well. The Montclair mill buys dry pulp which it converts into coated and uncoated fine paper for premium applications such as brochures catalogues magazines annual reports and labels. While developing viable strategies for Montclair's 1500 products its managers strive to exploit the mill's strengths and available market niches. Montclair's machines are 200 feet long and 20 feet wide. They differ in width and speed which determines capacity. The machines can produce various colours weights and grades of paper depending on pulp mix additives machine design, machine settings.

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It is believed in the industry that a mill cannot make money unless it runs continuously. What a machine produces is secondary to the fact that it is running. Changing products is believed to result in waste. Estimated at 30 per cent of overall mill cost waste includes lost materials, sewage disposal operating costs during change over and opportunities missed. The common wisdom is : 'The fewer changes, the better'. Montclair's machines average ninety tons per day whereas a typical premium paper machine produces from thirty tons to as little as ten tons per day (a world-class commodity paper machine can produce 1000 tons per day) . The management is not sure if the firm's size configuration constituted a strategic asset or liability in the premium niches . That is, the management is unsure if there are scale economics or diseconomies for machines of the size.

The mill was built in 1890 and had been making largely the same products for fifty years. The firm's managers had used a standard cost system for many years. Tom Winton took over as the CEO and after spending three months, tried to find out why the mill's profitability was so low. He made efforts to formulate appropriate corrective actions. He focused on the manufacture of one product-Carnival Uncoated Cover Paper in forest green colour as representative of the mill's problems. Forest Green Carnival grade paper was a typical deep colour product. It was difficult to run, difficult to sell in large quantities and difficult to position in the market place. The mill's standard cost for Forest Green Carnival was \$2,900 per ton. Selling at \$2,200 per ton, the Montclair Mill was losing \$700 per ton. With warehousing costs and capital charge for the prorated share of mill investment added, the loss was \$1020 per ton. The managerial challenge was to determine what the mill could and should do about this problem product.

Montclair's management accountant was convinced that the market price for the deep0 colour, uncoated cover grades was the problem not Montclair's manufacturing process. The standard cost of \$2900 per ton for the product was solidly constructed on :

Union wage rates for labour costs

Standard yield rates for all manufacturing steps based at the Montclair Mill performance measured against longstanding norms at the Montclair Mill.

Current market prices for all purchased components

Generally accepted industry procedures for building the normal cost of scrap into the standard cost after deducting the offset for the market value of the scrap generated.

The standards were updated annually for all changes in purchase prices process flows and yield targets. With more than 1500 products manufactured at the mill more frequent updating was deemed not feasible.

Manufacturing management and the division president Tom Winton accepted that the standard cost represented the best practices of the mill and thus, was an appropriate basis for monitoring manufacturing performance. Standard costs were also helpful to simplify calculating the month end cost of goods sold and the ending inventory for financial statements. Updated only once a year the standard cost was stable from month to month. The management viewed this stability as a positive feature in monitoring monthly performance as against the annual plan. In short this was a typically derived standard cost for a product that was infrequently produced and hard to make. Also typical was the high level of skepticism among financial manufacturing and general management that a substantially lower cost was feasible in this mill.

Mill managers believed that the losses per ton were related to price rather than cost. They believed that the sales organization was keeping the \$2,200 per ton selling price artificially low to compete against firms operating small fully depreciated obsolete mills, that might be employing non-union labour on following a marginal cost pricing strategy to keep their mills running. Sales managers considered pricing as a variable based solely on market competition. They were already selling the product at prices several hundred dollars per ton higher than competitors such as Ajax Paper Company because the market perceived Carnival as a high price many did not making further price increases infeasible. According to the sales force the loss was not a sales problem. Manufacturing personnel thought that costs were based on well established production processes and materials requirements. The loss was therefore not a manufacturing problem either. Financial management personnel monitored mill-product performance using its well established standard costing. Thus from its perspective the loss was certainly not an accounting problem. None of the groups considered the mill's loss on Forest Carnival paper as originating from their manufacturing processes or methods.

As per the target cost method the price acceptable to end use customers is worked out by deducting normal costs and margins along the value chain back to the mill. In this case Ajax Paper Montclair's competitor had won over Montclair with a bid of \$ 1466 per ton thereby setting the prevailing price in the market. The last step in netting back to an allowable mill target cost was to deduct an allowance for a

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reasonable return on the investment at the Montclair Mill. It was estimated at 15 per cent . With this step complete a competitive target cost for the Monclair Mill was calculated. This clearly represented a depressing scenario for Montclair's manages. The product had a target manufacturing cost of \$1162 per ton but a standard cost of \$2900 per ton.

The managers at Montclair realized that the manufacturing process is the problem. Then it was decided to reduce the manufacturing cost by 60 per cent and focused on the major cost components :

Fibre cost (changing the mix of recycled paper and virgin pulp to reduce raw materials cost)

Paper machine cost (getting on grade faster to improve yields)

Dye costs

Conversion cost (make or buy)

Fiber Cost : A team of mangers looked into the percentage of recycled paper in the raw materials mix above the standard allowance of 22 per cent a figure largely based on levels of internal scrap generation. The team found out from experience that recycled percentages ranging from 30-75 per cent would not affect the quality of the finished sheet if the scrap paper was handled carefully. Using 75 per cent scrap in the raw material mix reduced the Montclair mill's fiber cost by 60 per cent with no negative effect on paper quality. In addition market acceptance of the paper was favourable because Montclair could tout its products as 'high recycled content'.

Paper Machine Cost : A team of managers examined this cost and came up with the view that by reducing changing over time, the yield rate can be improved and cost can be reduced . By introducing new software change over time was reduced from two hours to forty minutes and this raised the yield rate to 75 per cent.

Dye Costs : The newly developed proprietary software enabled getting on shade with an average dye cost of only \$250 per ton instead of \$500 per ton. Considering the 75 per cent paper machine yields, this reduced dye related cost scaled down form \$ 1196 to \$ 400 an amazing \$796 reduction in the cost per ton.

Conversion Cost : Another team of mangers looked into this cost by seriously considering the make versus buy option. Based on a preliminary best practices survey a world class conversion cost of \$150 per ton was deemed possible as compared to Montclair's cost of \$ 303 per ton Each converting department was asked to develop competitive programmes or risk job loss to outsourcing. Over eighteen months the \$303 per ton conversion cost for Forest Green Carnival feel to \$240-a 20 per cent reduction. By combining the improvements contributed by the four teams of managers it was possible to reduce the manufacturing cost from \$ 2900 to \$1162. A target cost mind set could achieve the lower numbers. John K.Shank and Joseph Fisher (1999) identified the following cost concepts during the evolution of cost reduction efforts at the Montclair Paper Mill.

Ideal Manufacturing Cost : It is to be viewed from an internal perspective. It should mean no scrap no waste no inefficiency no delays perfect formulations and perfect plant layout.

Target Cost : To be viewed from an external perspective. It should mean ideal value proposition price to the end user . From the ideal value proposition price to the end user subtract normal costs and margins along the value chain back to the manufacture.

Standard Cost : Tough but attainable . It comprised ideal cost plus the allowable waste and inefficiency actual cost.

At the beginning of the field study made by John K.Shank and Joseph Fisher management focused too much attention on standard cost toward cost in order to minimize unfavourable variances for public financial reporting. Management focused too little attention on ideal manufacturing cost which is often dismissed as having dysfunctional motivational impact. Target costing received no attention. At the end of the field study the most useful cost management tool focused on ideal manufacturing cost versus target cost in relation to actual cost. The standard cost concept dropped out of the picture.

The Montclair story illustrates the potential of using target costing as a proactive cost reduction tool in place of ineffective standard costing . Target costing forced Montclair's managers to rewrite the rules of the game by changing the way the mill delivered value to its customers . The standard costing accepts the existing game rules and the existing value chain. The use of target costing however does not believe the rules of the existing game and paves the for innovative changes to make fundamental cost breakthroughs.

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