

DECISION COSTING CASE STUDY

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One of our clients, a \$17 million manufacturer, highlights many of the characteristics that make a company a good candidate for Decision Costing. Like many of our clients, this company used traditional means of measuring the cost of its products and processes. It had a plant-wide, direct labor-based rate for all manufacturing overhead (based only on run time – set-up costs were included in overhead) and spread all non-manufacturing costs with a “peanut butter” like “G&A rate.”

In reality, the company had two distinct lines of business; one high-overhead, capital-intensive business and one low-overhead, labor-intensive business.

After developing activity-based rates for these operations, it was found that rates for the capital-intensive activities ranged from \$49.00 to \$72.00 per hour while rates for the labor-intensive activities were only \$36.00 per hour. In addition, the isolation of set-up costs showed that they could range from \$25.00 to \$1,000.00 per set-up. Add to this the fact that over 90% of the products were routed through multiple operations, requiring a set-up up for each production step, and you can imagine how significant the improper handling of set-ups had on the company’s understanding of manufacturing costs.

There was another important characteristic of the business that was totally ignored by their costing system. The company was a build-to-stock company. Production was based on forecast demand and the products warehoused until ordered by a customer. It was, in effect, two companies under one roof: a manufacturer who sold to an in-house fulfillment business and a fulfillment company that sold to the customer. The costs of fulfillment had nothing to do with manufacturing the product; they were driven by the ordering characteristics of the company’s customers.

For example, the cost of processing a customer order ranged from \$9.00 to \$36.00, depending on the country to which the order was being shipped. In addition, there was an additional cost of \$2.00 for every “line item” included on the order – this represented the cost of “picking” the product from its storage location in the warehouse. This meant that the profitability of a customer could vary considerably based on their geographical location and the quantity purchased of each line item they ordered.

The company’s costing shortcomings did not end with manufacturing and warehousing costs. The “peanut buttering” of selling, general and administrative costs also hid many of its economic realities.

The company sold 85% its products to and through its 900 authorized distributors. The balance was sold directly to customers in the rail industry. An analysis of the cost of supporting these two distribution channels revealed that their support costs were virtually the same. 50% of the cost supported 85% of the business while the other 50% supported

15% of the business. This added approximately 30% to the cost of all products sold to the rail industry, wiping out that business segment's profit and throwing into a loss position.

A somewhat less dramatic, but similar relationship was found when analyzing the technical support required for the company's two product lines. The company's capital-intensive line of business represented two-thirds of its sales while the labor-intensive line represented the other one-third. Engineering and other technical support costs to support these two business lines were, however, almost identical. This was a result of the labor-intensive products being fairly complex from a design and engineering standpoint, but assembled from mostly purchased components. As a result, the "add on" product line support cost for labor-intensive products was double that for capital-intensive products.

Armed with its new, more accurate and relevant cost information, the company is now proceeding to act. Included in its actions are:

- a re-evaluation of its rail business to determine whether steps can be taken to make it profitable or it should be phased out,
- a study of capital-intensive products with low volumes to determine whether they are critical components of the product line or can safely be dropped
- a project to find methods of reducing set-up frequency and set-up times
- a market study to determine a revised pricing policy that would provide a volume and mix of business that would provide it with the most profitable portfolio of business based on accurate product, fulfillment and support costs
- exploration of incentives that can be used to encourage customers to place fewer, but higher volume orders

In supporting these action, the company not only has its new "rates" and a greater understanding of its own internal economics, but a powerful, activity-based model that enables it to accurately measure the incremental impact on its business of its drop/add options, process improvement actions, and changes in the volume and mix of its business.