

DECISION COSTING CASE STUDY

D. T. Hicks & Co.

Accurate and relevant cost information is critical if a business is to make sound, fact-based decisions. An effective cost model will provide three types of cost information for management's use:

- “Fully-absorbed” cost information to support core business pricing decisions. The model must be able to determine these “fully-absorbed” costs at varying volumes and mixes of business activity,
- Incremental cost information for the myriad of decisions that require the “net change” in overall business costs resulting from a proposed course of action, and
- Activity or process cost information to help the business isolate the cost of critical business processes to help direct and measure its continuous improvement, mass customization, supply chain management, and lean thinking initiatives.

In developing this cost information, the model must also enable the business to modify “accounting” costs to reflect the true “economic” costs of operating the organization.

The D. T. Hicks & Co. decision costing process provides managers with all three types of cost information as evidenced by the case of a \$20 million forging business serving the automotive industry.

This forging company had been developing its cost information using traditional costing methods. It determined its product costs using a plant-wide, direct labor-based overhead rate calculated using the previous year's actual results. To “fully-absorb” its costs, it added non-manufacturing costs as a single “G&A” rate calculated as a percentage of total product cost. At the time it began implementing the D. T. Hicks & Co. decision costing process, its EBIT on \$20 million in sales was approximately \$500,000.

As part of the process, manufacturing costs were broken down into logical groupings including high-cost, non-value adding activities such as in-process movement and storage and equipment set-ups. Set-up costs included not only the cost of set-up activity, but the cost of lost capacity due to equipment downtime. Labor costs were separated from equipment operating costs to provide for situations where different crew sizes could be used to operate the same piece of equipment.

Support and administrative costs were also addressed. Costs related to purchasing, receiving and storing raw materials were isolated as were the costs of managing “Tier 2” forging suppliers and sub-contractors. Program and product launch costs were also determined along with the differing costs of supporting different customers.

Using this new costing structure, a cost model was developed that accumulated the total cost of operating the business under varying volume and mix scenarios and then translated those costs into “fully-absorbed” rates for costing individual products and customers.

The new “fully-absorbed” cost information (which was not determined at the company’s current volume but at its “practical capacity”) identified several of the company’s products that were losing a significant amount of money. On the other hand, it also highlighted several recent quotations the company was not awarded because its former costing model caused it to quote prices far above those needed to earn its targeted return. During the next few years, the company was able to use its new cost information to stock its portfolio of core business with much more profitable products.

The business also capitalized on its new ability to perform accurate incremental cost analyses. It was able to take on several “non-core” products that contributed to its profitability in the short-term without damaging its ability to sell “core” products profitably. It was also able to accurately model the addition of equipment and floor space before committing to the project. Surprisingly, it was able to determine the overall savings it would realize when it increased the *cost* of performing set-ups while reducing the *time* they take. By reducing set-up *time*, they were able to avoid the purchase of two new presses during the first few years after adopting D. T. Hicks & Co.’s decision costing methodology.

Finally, their new understanding of activity and process cost radically changed the way they operated the business. The most powerful revelation was the cost of in-process movement and storage. Once this cost was isolated, they found ways to eliminate movement (and its cost) through increased use of progress dies, moving secondary operations next to primary operations, and scheduling so that former “move-store-move” activities were changed to “move only” activities. They also learned that the cost of managing “Tier 2” forging suppliers more than offset the savings they thought they gained by “farming out” some of their products. Bringing many of these products back “in house” further improved their profitability.

Four years after the new costing model and methodology were adopted, our \$20 million forging business had grown to a \$60 million operation. More importantly, its \$500,000 EBIT had grown to over \$5 million. Admittedly, more than just improved cost information was involved. However, all of the company’s actions were based on accurate and relevant cost information; information that would not have been available had they continued using their old, traditional approach to costing.

As a postscript to this case, our small forging company was purchased by a \$3 billion automobile industry supplier. In a classic case of “tail wagging the dog,” the new owner’s management initially adopted our small company’s costing methodology throughout its \$600 million forging division and later throughout the entire organization. Today, that \$3 billion company is one of the few large automobile industry suppliers that remains highly profitable.