The Competitive Advantage of Accurate Cost Information

One of the great legends of college football was Woody Hayes, coach of the Ohio State Buckeyes from 1951 to 1978. Woody’s Buckeye teams were famous for their running game. “Three yards and a cloud of dust” was the style of most Big Ten teams in those days. Hayes might tell you that he did not like to pass because “there are three things that can happen, and two of them are bad”.

The same is true of product pricing. Three things can happen in pricing – and two of them are bad. A company’s reward for a price set too low is an unprofitable sale. Their reward for a price set too high is a lost sale that would have been profitable at a lower price. Only some place between these two
numbers does the company have the opportunity to both make a sale and a profit.

While companies rarely price their products below cost intentionally, they often do so due to poor costing information. Traditional costing methods do a good job at telling the average cost of an average product sold to an average customer; but they do a poor job of identifying the specific costs related to a specific situation.

Cost, of course, is not the only issue in establishing price. The product’s value as perceived by the customer is another key factor. In fact, when a company has a superior value proposition or is the only one who does what they do, value is the most important factor in the pricing decision. However, value pricing falls apart in the face of real competition and cost becomes a more significant concern.

Traditional costing methods fail in many pricing situations because they arbitrarily allocate indirect costs. Today, indirect costs such as rent, depreciation, utilities and supervision are often a significant portion of the company’s cost structure. While many people think such costs are unrelated to specific products, an analytical mind will quickly see cause and effect connections between products and the activities required to provide them to a customer.

Traditional costing methods fail in predictable ways. They over-allocate costs to high volume or easy-to-make products and under-allocate costs to difficult-to-make or low volume products. Thus, traditional methods bias pricing decisions towards the unprofitable “dog” products that you would be perfectly willing to give to a competitor and against the money-making “gravy” jobs products you would prefer to keep for yourselves. When you have superior costing information, you have the ability to give the dogs to your competitors and keep the gravy for yourself.

While this is a simplistic view, in the real world, many companies routinely under-price difficult or low volume work to the great satisfaction of their customers and overprice easy or high volume work to the great satisfaction of their competitors. Pricing policies based on “average” cost work well only when a company has nothing but “average” products. Today, because many companies produce a diverse portfolio of products using diverse processes, there may be few, if any, average products.

Activity-based costing (ABC) provides the tools necessary to understand indirect costs. In the early days of ABC, some writers proposed that a company identify
the cost of every activity the company performed. Today, ABC practitioners know that it is not necessary to look at hundreds of categories of costs. Where companies once spent months performing an activity-based costing analysis, some companies now are able to produce an adequate analysis in as little as three days.

A company that understands five categories of costs will have a competitive advantage over a company that looks at traditional cost accounting’s three categories of cost (material, labor and overhead). A company that looks at 12 categories of cost will have a competitive advantage over one that looks at seven. However, the law of diminishing returns applies. A company that looks at 20 categories of cost will not necessarily have an advantage over one that looks at twelve.

**Case Example – Team 1 Plastics, Inc.**

Team 1 Plastics, Inc. in Albion, Michigan developed their first activity-based quoting model in 1998. Team 1 is a plastic injection molding company that specializes in lenses, light pipes and other small precision plastic components for mostly automotive applications. Team 1’s pricing model has evolved over the last 12 years and now examines 12 categories of cost.

**Launch Costs** – One part of Team 1’s model examines the cost to launch a new product. Team 1’s product launch process includes quoting, engineering, layout, PPAP, selling costs and other activities that occur before the company produces the first saleable unit of a product. Launch costs are a fixed cost that is completely independent of the number of units sold. Team 1’s launch costs typically range from $5,000 to $15,000 depending on the nature of the product. For a high volume product, launch costs per piece may be trivial. However, for a low volume product, launch costs may be the most significant element of cost.

Team 1 knows that complex products are more difficult to launch than simple products. The company’s pricing model uses the number of critical product dimensions as a measure of complexity. The critical dimension count causes the company’s pricing model to classify products as “easy”, “medium” or “hard” with corresponding different costs for each level. Product complexity also influences mold maintenance costs in the company’s pricing model.

**Set-up Costs** – Team 1’s pricing model automatically calculates the production batch size of each product based on the company’s production planning policies.
This step-variable cost is very volume sensitive and may represent a significant cost element for a low-volume product.

**Volume Sensitivity** – Team 1 knows that the existence of fixed launch costs and set-up costs causes every product to have a characteristic relationship with volume.

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**Cost Volume Relationship** – All products in all industries have similar cost volume relationships.

**Packaging** – The number of parts in a box is a key factor not considered in many cost models. Team 1 realizes that handling boxes from the molding machine to the customer dock is significant cost factor. Many of their customers want to use low box quantities to facilitate just in time production. However, it takes 10 times the handling for 10 boxes of 100 parts than a single box of 1,000 parts. Team 1’s customers often supply returnable containers for their parts. The customers believe that packaging costs should be zero because they supplied the returnable containers. However, Team 1 knows that returnable containers
involve significant handling, upkeep and storage costs. A returnable container is cheaper than a box but it is not free. Sometimes the cost of shipping a product in a small returnable container can be a significant portion of the product’s cost. Since Team 1’s activity-based quoting model allows them to quantify these costs, they are often able to offer their customer cost-saving alternatives.

**Profit** – Team 1’s pricing model is unusual in placing more emphasis on obtaining a return on assets rather than a return on sales. This approach implies that a fast paying customer will get a lower price than a slow paying customer will. Because it has accurate costing information, the model does not have to use cost factors to “fudge” it price. Instead, it can quote the part accurately and only adjust the profit based upon customer and competitive factors.

The company believes that its model has been an important factor in the company’s profitable operation for the last decade. It allows Team 1 to translate their costs to an accurate price and negotiate with customers so that the parts they win are profitable. The model is accurate regardless of how far from average in factors such as volume, complexity, and packaging the product may be.

**How Good is Your Pricing Model?**

All pricing models should reflect a combination of fixed, variable and step variable costs, which create a volume-dependent price. A good pricing model does not fail at extremely high or low volumes. Test your model by specifying a volume of a single unit. If you would be willing to produce this product, even though you would only sell one, then the model is probably a good one.

Astute customers know that they have smart vendors and dumb vendors when it comes to pricing. Smart vendors may be consistently the low bidder on high volume jobs and very high priced for low volume jobs. Dumb vendors quote similar prices, regardless of volume. If you are a major customer of the dumb vendor, their lack of costing skills can cause them to cease to exist, leaving you with a possible supply interruption. Avoid being a major customer to a dumb vendor!

**Lower Your Average Quote While Increasing Your Profit**

Surprisingly, pricing experts believe that companies who use activity-based costing are able to lower their average quoted price yet improve their
profitability. Because companies with poor cost information tend to win the difficult/low volume quotes that they underbid, they usually conclude that they have to add “fudge factors” to obtain their target profit. These fudge factors have the effect of raising the company’s average quoted price while making the “dumb” vendor competitive on even fewer bids.

The net result is the company with the best cost accountant wins!

Have you taken a cost accounting seminar lately?

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