

## An ABC Brief

### What, Why, How?

Activity Based Costing (ABC), which today is a very popular topic in trade journals and at industry conventions, is really not a new technique. One of the first national articles on ABC, entitled "The Productivity Paradox", appeared in the June 6, 1988 issue of Business Week. Some claim ABC's roots are in the cost accounting methods developed in the 1800s. Over time, ABC's implementation has varied and this, in my opinion, has led to confusion regarding the technique itself.

So, the need for the "**what**". CAM-I (Computer Aided Manufacturing - International) defines ABC as "A method that measures the cost and performance of process-related activities and cost objects.". The implementation variation previously mentioned has occurred when measuring costs and applying those costs to activities and cost objects.

What are activities and cost objects?

Cost objects, such as customers, consume activities. Activities consume resources. Through factors called resource drivers, quantities of resources consumed are assigned to the appropriate activities and, in turn, the costs of these activities, using activity drivers, are assigned to the consuming cost objects. The goal of an ABC model is to show how and where dollars are spent. This differs from traditional accounting which only can show what was spent. That accounting information combined with some "TQM-like" measures is how we have attempted in the past without ABC methodology to improve the quality of work processes and drive the costs out of those processes.

A simplified example illustrates the ABC approach. Two costs objects (Customers) consume activities (order entry, picking, special packaging, shipping, etc.) performed by your personnel which in turn consume your resources (time, people, materials, etc.).

Resource drivers are used to assign G/L costs to activities based on usage. Activity drivers are used to assign the costs to the customers based on actual consumption. We might find from an exercise like this that customer B was more profitable than Customer A because they consumed fewer activities although accounting for 60% of all orders. In the past, using a "TQM-like" measure such as average cost per order, our reaction probably would have focused on customer B and on the number of orders, e.g., get the customer to place fewer orders.

With the ABC model, we can focus on activities which cause customer A to be less profitable. Also, we have actual data to guide our decision, e.g., do we eliminate special packaging for customer A or do we add a handling surcharge, etc.? Because of the insight gained as to actual cost structures, operational improvements can be achieved by reducing the number of costly non-value add operations as well. For example, customer A's profitability might be improved by reducing the costs associated with product returns and the costs associated with the credit memo process.

We should now be able to understand that the major potential benefits (the "**why**") of an ABC project come from 1.) process improvements and 2.) customer profitability analysis. We will quantify the "**why**" benefits later in this white paper.

From this brief discussion of ABC, I believe it becomes apparent why implementation considerations (the "**how**") become important. In my opinion, ABC is really an iterative process. Project failure or lack of tangible results have occurred when the initial model is too complex, designed with too many activities, or where data is not available to assign costs accurately to chosen activities. The lesson learned is to start small, learn, and get quick payback. Use the results of the first ABC model to set business strategy as well as the direction of the next model, including provisions to capture or retain data important to improving model results. Repeat for continuous improvement. With the right approach, results can and have been achieved.

Now let's quantify the benefits of the "**why**" of an ABC project, i.e., process improvements and customer profitability analysis. Consider a hypothetical Wholesale Distributor with annual sales of \$10million, 20% margin, and a 5% net profit.

A modest reduction of operating expense of 1% would result in a bottom line profit increase of \$15,000. One ABC project on which I worked revealed that the wholesaler was processing an unusually high number of inventory adjustments per month. After studying the process involved, we were able to define the root cause and reduce the number of inventory adjustments by over 97%. This resulted in the reassignment of one person within the company and the avoidance of a new hire to fill that position; a net savings in this case from process improvements greater than the 1% target of \$15,000.

Now let's examine customer profitability analysis (CPA). Harvard professor, and Activity Based Costing authority, Dr. Robert Kaplan estimates that as few as 20% of your customers contribute up to 180% of your profits. In other words, you give up 80% of your profits doing business with the remaining 80% of your customers. Staying conservative in our analysis, consider implementation of a pricing strategy aimed at these 80% unprofitable customers that would yield a modest 0.1% (yes, just one tenth of 1 percent) increase in sales. The result of this pricing action, without any comparative increase in COGS, would drive an additional \$10,000 to the bottom line.

The cumulative benefits from this hypothetical Wholesale Distributor ABC project are \$25,000 or a 5% bottom line improvement.

The point made earlier that implementation considerations (the "**how**") are important become clearer. The potential benefits and payback from an ABC project are significant to consider an ABC project for your company and to commit to its successful implementation.

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