

Measuring and Managing Customer Profitability

By Gary Cokins, CPIM

The only value a company will ever create for its shareholders and owners is the value that comes from its customers—current ones and new ones acquired in the future. To remain competitive, companies must determine how to keep customers longer, grow them into bigger customers, make them more profitable, serve them more efficiently, and acquire more profitable customers.

But there's a problem with pursuing these ideals. Customers increasingly view suppliers' products and standard service lines as commodities. This means that suppliers must shift their actions toward differentiating their services, offers, discounts, and deals to different types of existing customers to retain and grow them. Further, they should concentrate their marketing and sales efforts on acquiring new customers who have traits comparable to those of their relatively more profitable customers.

As companies shift from a product-centric focus to a



customer-centric focus, a myth that almost all current customers are profitable needs to be replaced with the truth. Some high-demanding customers may indeed be unprofitable! Unfortunately, many companies' managerial accounting systems aren't able to report customer profitability information to support analysis for how to rationalize which types of customers to retain, grow, or win back and which types of new customers to acquire. With this shift in attention from products to customers, managers are increasingly seeking granular nonproduct-associated *costs to serve* customer-related information as well as information about intangibles, such as customer loyalty and social media messaging about their company and its competitors. Today in many companies there's a wide gap between the CFO's function and the marketing and sales function. That gap needs to be closed!

Here's the basic problem. With accounting's traditional product gross profit margin reporting, managers can't see the more important and relevant "bottom half" of the total income statement picture—all the profit margin layers that exist and should be reported from customer-related expenses such as distribution channel, selling, customer service, credit, and marketing expenses.

The marketing and sales functions already intuitively suspect that there are highly profitable and highly unprofitable customers, but management accountants have been slow to reform their measurement practices and systems to support marketing and sales by providing the evidence. To complicate matters, the compensation incentives for a sales force (e.g., commissions) typically are based exclusively on revenues. Companies need to not just increase market share and grow sales but to grow *profitable* sales. Compensation incentives should be a blend of both customer sales volume and profits.

Who are the troublesome customers, and how much do they drag down profit margins? Who are the valuable customers? What's the difference between a valuable customer and a profitable one? More important, once these questions are answered, what corrective actions should managers and employees take to increase the profit from a customer? Measurements are the key.

Good vs. Bad Customers

Some customers purchase a mix of mainly low-profit-margin products. After adding the nonproduct-related costs to serve for those customers, *apart from* the costs of the mix of products and standard service lines they purchase, these customers may be unprofitable to a supplier. But customers who purchase a mix of relatively high-profit-margin products may demand so much in extra services that they also could potentially be unprofitable. How does a company measure customer profitability properly? In extreme cases, how does it deselect or "fire" a customer that shows no promise of ever being profitable?

Every supplier has what I call good and bad customers. Low-maintenance "good" customers place standard orders with no fuss, whereas high-maintenance "bad" customers always demand nonstandard offers and services, such as special delivery requirements. For example, the latter constantly returns goods or contacts the supplier's help desk. In contrast, the former just purchases a company's products or service lines and is rarely bothersome to the supplier. The extra expenses for high-maintenance customers add up. What can be done? After the level of profitability for all customers is measured, they all can be migrated

toward higher profits using "profit margin management" techniques, which I'll discuss later.

These observations have been around for decades. Back in 1922, William B. Castenholtz wrote in "The Application of Selling and Administrative Expense to Product" in the *National Association of Cost Accountants (NACA) Yearbook*:

"Very often, although a cost system may be nearly perfect and all possible factory economies may have been effected, a manufacturer may nevertheless show losses due to inadequate control over his selling and administrative expenses. In fact, unless the same (costing) principles are applied in controlling selling and administrative costs (as for production), the entire advantage gained through efficient low-cost production may be lost."

Pursuit of Truth About Profits

Why would a company want to know the answers to the questions about customer profitability levels? Possibly to answer more direct questions about its customers, such as:

- ◆ Do we push for volume or for margin with a specific customer?
- ◆ Are there ways to improve profitability by altering the way we package, sell, deliver, or generally service a customer?
- ◆ Does the customer's sales volume justify the discounts, rebates, or promotion structure we provide to that customer?
- ◆ Can we influence our customers to alter their behavior to interact differently (and more profitably) with us?
- ◆ Can we shift work to or from some of our customers based on who, them or us, is more capable or has lower process expenses?

To be competitive, a company must know its sources of profit and understand its own expenses and cost structure. With the facts, what actions can be taken to increase profits? For outright unprofitable customers, a company can explore passive options of gradually raising prices or surcharging for extra work, hoping the customer will go elsewhere. For profitable customers, a company may want to reduce customer-related causes of extra work for its employees (e.g., unneeded extra product packaging), streamline its delivery process, or alter the customers' behavior with pricing incentives so those customers place fewer workload demands on the company.

Activity-based costing (ABC) is the method that will economically and accurately trace the consumption of an organization's resource expenses (e.g., salaries, supplies) to products and to the types and kinds of channels and

customer segments that place varying degrees of workload demand on the company. It should no longer be acceptable not to have a rational system of assigning so-called nontraceable costs to their sources of origin. ABC is that system. Yet many companies still don't use it.

ABC Is a Multilevel Cost Reassignment Network

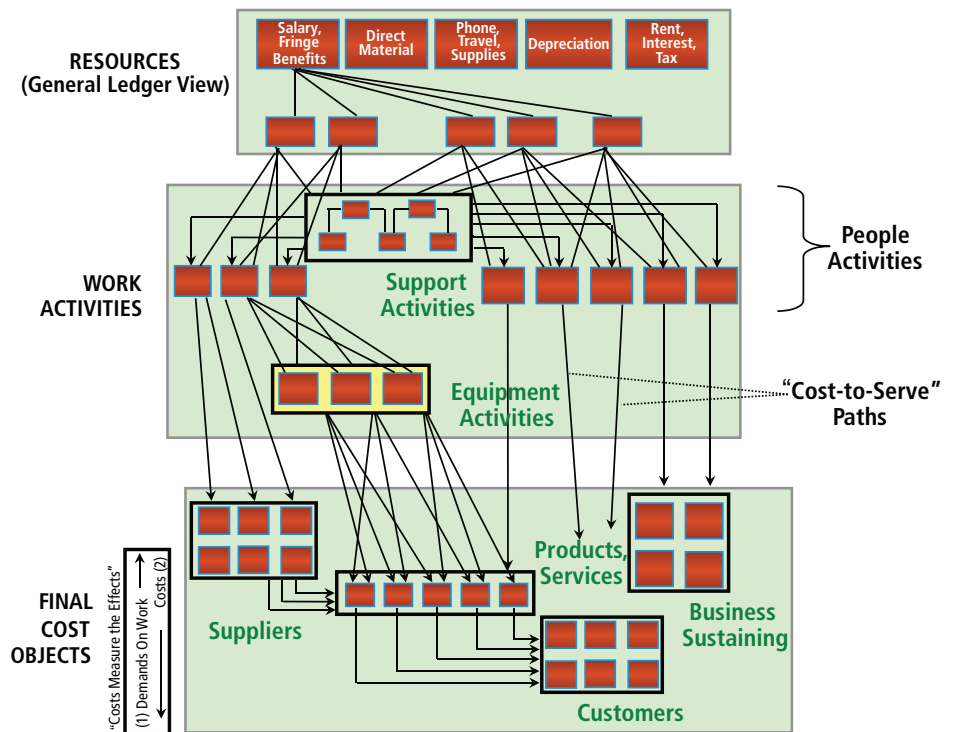
ABC uses multiple stages to trace and segment all the resource expenses as calculated costs through a network of cost assignments into the *final cost objects*: products, service lines, channels, and customers. It facilitates more accurate reporting because it honors costing's *causality principle* (i.e., the relationship between cause and effect) for expense consumption relationships.

In complex, support-intensive organizations, there can be a substantial chain of indirect work activities that occur prior to the direct ones that eventually trace into the *final cost objects*. These chains result in activity-to-activity cost assignments, and they rely on *intermediate* activity cost drivers traced to consuming activities in the same way that final cost objects rely on activity cost drivers to reassign costs into final cost objects based on their diversity and variation.

Turning indirect costs into direct costs is no longer as insurmountable a problem as it was in the past. Integrated ABC software allows *intermediate* direct costing to a local process or to an internal customer or required component that is causing the demand for work. It further allows tracing costs among the final cost objects. Resource and activity cost drivers reassign expenses into costs with a more local, granular work activity level than in traditional systems, such as the accountant's rigid cost center *step-down cost allocation method* that reduces costing accuracy by relying on a single cost allocation factor for an entire support department.

ABC software is arterial in design, so it flows costs flexibly and proportionately. Eventually via this expense assignment and tracing network, ABC reassigns 100% of the resource expenses into the final accumulated costs of prod-

Figure 1: ABC Cost Assignment Network



ucts, service lines, channels, customers, and business-sustaining work. Visibility of costs is provided everywhere throughout the cost assignment network, including for how costs are “driven” by the activity cost drivers that comply with the cause-and-effect relationships. This visibility aids in identifying where to focus improvement efforts.

Examine the ABC cost assignment network in Figure 1 that consists of three modules connected by cost assignment paths. ABC provides a snapshot view of a time period's costs (e.g., a month). Imagine the cost assignment paths as wide pipes and thin straws where the diameter of each path reflects the amount of cost flowing. The power of an ABC model is that the cost assignment paths and their destinations trace costs from beginning to end—from resource expenses to each type of customer (and optionally to each specific customer). Customers are the origin that results in the consumption of all of a supplier's expenses and subsequent costs.

To understand why customers are the origin for costs, mentally reverse all the path arrowheads in Figure 1 from bottom to top. This polar-opposite switch reveals that all expenses originate with a demand-pull from customers—and the calculated costs simply measure the effect in the reverse direction.

Resources, at the top of the cost assignment network in Figure 1, provide the available capacity to perform work.

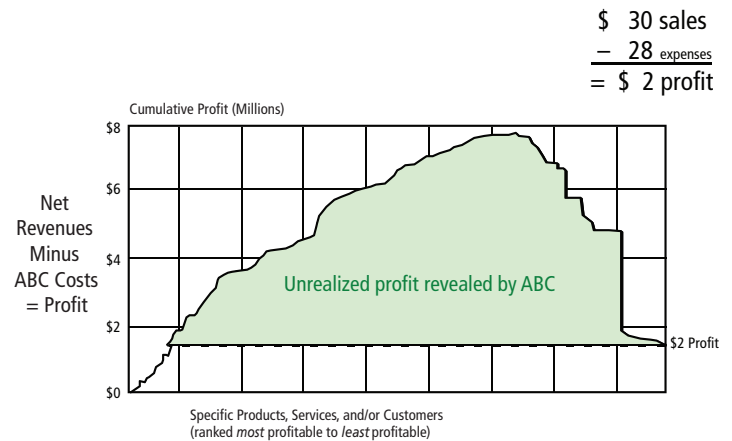
Think of resource expenses as coming from the organization's checkbook in the form of procurement purchases and employee payroll. Cash is exiting the treasury. Examples of resources are salaries, operating supplies, or electrical power. (Amortized cash outlays, such as for depreciation from a prior period, can also be modeled.) It's during this step that "resource cost drivers" are identified and measured as the mechanism to convert resource expenses into activity costs. One basis for tracing or assigning resource expenses is the time (e.g., number of minutes) that people or equipment spend on performing work activities. A more popular basis is to use percentage splits of time from the resources totaling 100% among the work activities.

Work is performed by employees or assets, and resources are converted into some type of output in the work activities module. Activity cost drivers are the mechanism to accomplish this assignment. An example in a warehouse is the number of stocked items picked. In a bank, it's the number of automobile loans processed. In a hospital, it's the number of blood tests administered. A bonus from ABC is the unit-level cost consumption rates, which are useful for comparative benchmarking studies as well as for projecting future expenses and costs such as with rolling financial forecasts, what-if scenario analysis, and outsourcing decisions. (For the latter, "predictive accounting" entails a different aspect to management accounting involving the classification of resource capacity expenses as sunk, fixed, step-fixed, or variable relative to changes, and the classification depends on the time-length planning horizon and type of decision. These concepts aren't discussed in this article, but they are important ones.)

Final cost objects, at the bottom of the cost assignment network, represent the broad variety of outputs and services where costs eventually accumulate. Customers are the *final-final cost objects*. They create the need for resource expenses to be supplied. Final cost objects can be thought of as "the what or for whom" that work activities are performed. In advanced costing models, balance sheet items, such as inventories or customer receivables, can be traced using "cost of capital drivers," such as a product's average inventory level or a customer's days' sales outstanding (DSO).

Some activities in an organization don't contribute directly to customer value, responsiveness, and quality. That doesn't mean those activities can be eliminated or even reduced without doing harm to the business. For example, preparing required regulatory reports certainly

Figure 2: Cumulative Profit By Customer



doesn't add to the value of any product or to the satisfaction of the customer. Yet that type of work activity is valuable to the organization because it enables the company to function in a proper legal manner. These types of activity costs are usually traced to a "sustaining cost object" group popularly called *business sustaining costs*. These business sustaining costs aren't involved with making or delivering a product or servicing a customer, but the costs do need to be covered with revenues for the total company bottom line profit.

The key to a good ABC system is the design and architecture of its cost assignment network. The "nodes" in the network are the sources and destinations through which all the expenses are reassigned via calculated costs. The network with its nodes delivers the utility and value of the data for decision making.

Beneath the Iceberg: Unrealized Profits

With a valid cost model, Figure 2 displays a graph line referred to as the "profit cliff" (and sometimes the "humpback whale" curve). This line is the cumulative buildup of each customer's profit. Customers are rank-ordered from the most profitable to the least profitable, including those who are unprofitable (i.e., customers with a financial loss where their costs exceed their revenues). The last data point reconciles exactly with the company's total profit and loss (P&L) statement.

The graph illustrates how a substantial amount of *unrealized profits* can be hidden because of inadequate existing (and traditional) cost allocation methods and incomplete costing below the product gross profit margin line. Managers usually believe that the curve would be relatively flat. The broad averaging of traditional non-

causal overhead cost allocations is crushing the cost accuracy and results in this flat-curve belief. ABC detects the unique variations of the final cost objects' consumption of the work activities and their related capacity-providing resource expenses. ABC information usually shocks executives and managers the first time they see it because they have typically presumed that almost all but a few of their customers are profitable. Instead, they have large profit makers and profit takers.

By using ABC, there can now be a valid P&L statement for *each* customer as well as for logical segments or groupings of similar types of customers. The shape of this graph is typical for most companies. From left to right, the graph line reveals the company earns a substantial amount of profit from a minority of customers, roughly breaks even on some, and then loses profits on the remainder.

Future Profit Potential Via Customer Lifetime Value (CLV)

For business-to-consumer (B2C) companies, such as banking and telecommunications, customers pass through life cycles. This means there's a difference

between a currently profitable customer and a customer who may be more valuable in the future.

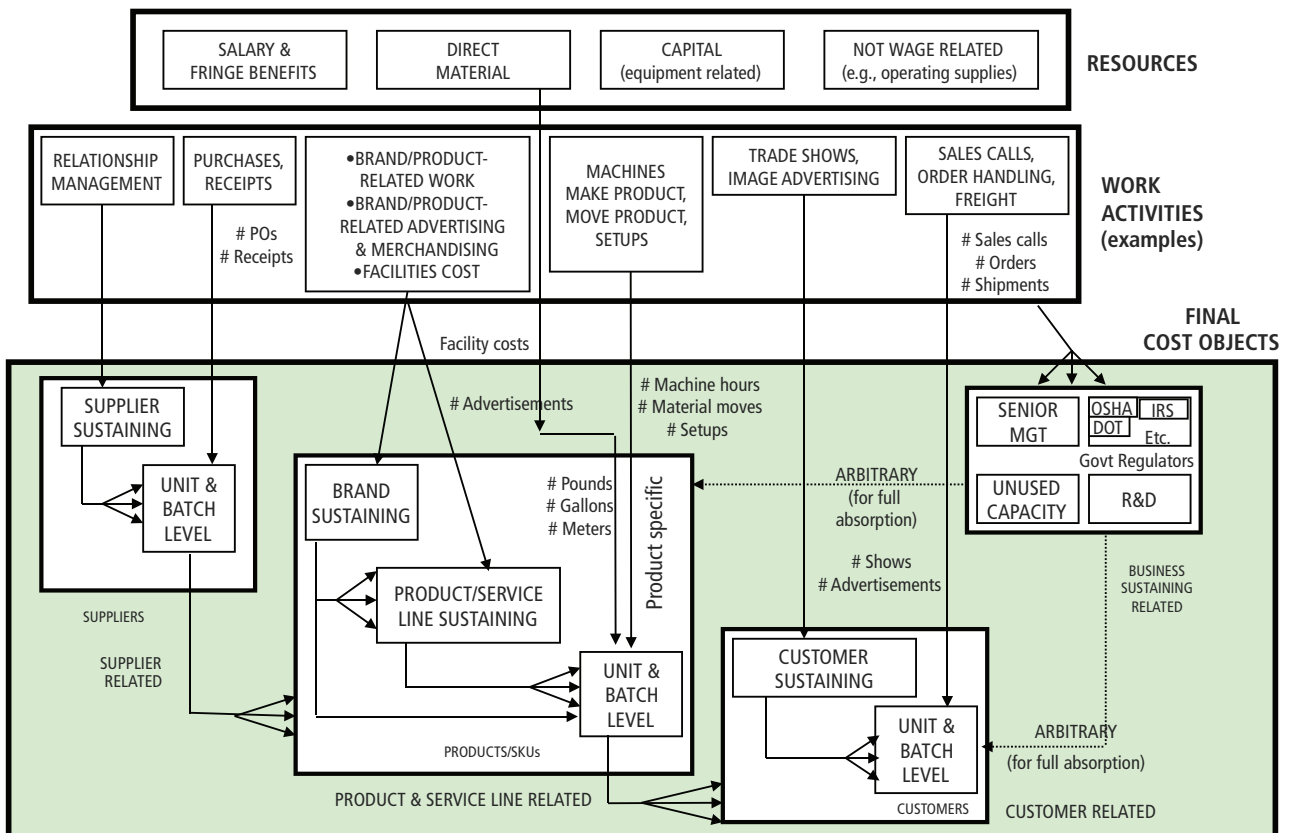
This difference shifts attention from the current run rate of past-period profit levels from their consumers to their future potential profit level. For B2C companies, accountants can calculate each customer's CLV before and after various marketing campaigns and targeted offers and deals. This provides sales and marketing the ability to apply return on investment (ROI) measures to evaluate which customers can achieve the highest profit increase from actions.

Migrating Customers to Higher Profitability

The crucial challenge is not to use ABC just to calculate valid customer profitability information from transactional data but to really *use* the information—and use it wisely. The benefit comes from identifying the profit-lift potential from customers and then realizing the potential with smart decisions and actions.

Figure 3 decomposes the ABC cost assignment network's final cost object module in Figure 1 with more granularity. It displays two layers of a "nested" consump-

Figure 3: ABC Profit Contribution Margin Layering



tion sequence of costs in the bottom final cost objects module. The metaphor for this consumption sequence is the predator food chain where large mammals eat small mammals and small mammals eat plants. The final-final cost object—the customer—ultimately consumes all the other final cost object costs except for the business sustaining costs.

Within each of the major final cost object categories (e.g., supplier, product/service line, and customer), each has its own type of “sustaining costs,” which are also assignable to its end-product or end-customer using a cost object cost driver to reflect the diverse consumption relationship.

The left-to-right sequence of the activity cost drivers creates profit margin layers like layers in an onion’s skin. As a result, there can now be a valid P&L statement for each customer as well as logical segments or groupings of customers. Figure 4 is an example of an individual customer profitability statement.

With an ABC P&L, managers can examine the individual products and service lines purchased in greater detail. They are a mix of high- and low-product-profit-margin purchases, based on their own unit costs and prices, as a composite average. Managers also can drill into details about the product-mix profit margins for more visibility. In addition, within each product or standard service line, the user can further examine the content and cost of the work activities and materials for each product and service line. This customer P&L information quantifies what many employees already may have suspected. All customers aren’t the same with their profit levels excluding sales volume.

Although customer satisfaction and loyalty are important, a longer-term goal is to increase corporate profitability for the shareholders derived from increasing profits from customers as if each customer were an investment in a stock portfolio. Think that the purpose of actions taken is to increase the financial “return on customer (ROC).” There should always be a balance between managing the level of customer service to earn customer loyalty and the spending impact that doing that will have on shareholder wealth.

In any company’s P&L there are two major “layers” of profit margin:

1. By the mix of products and service lines purchased.

Figure 4: ABC Customer Profit & Loss Statement

CUSTOMER: XYZ CORPORATION (CUSTOMER #1270)			
Sales	\$\$\$	Margin \$ (Sales – ΣCosts)	Margin % of Sales
Product Related			
Supplier-Related Costs (TCO)	\$ xxx	\$ xxx	98%
Direct Material	xxx	xxx	50%
Brand Sustaining	xxx	xxx	48%
Product Sustaining	xxx	xxx	46%
Unit, Batch*	xxx	xxx	30%
Distribution Related			
Outbound Freight Type*	xxx	xxx	28%
Order Type*	xxx	xxx	26%
Channel Type*	xxx	xxx	24%
Customer Related			
Customer Sustaining	xxx	xxx	22%
Unit, Batch*	xxx	xxx	10%
Business Sustaining	xxx	xxx	8%
Operating Profit		xxx	8%

* Activity Cost Driver Assignments use measurable quantity volume of Activity Output (Other Activity Assignments traced based on informed (subjective) %s).

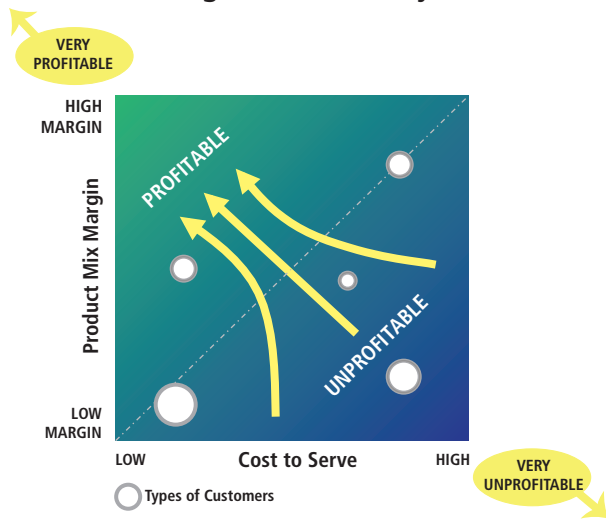
2. By the “costs to serve” apart from the unique mix of products and service lines. (This is that “bottom half of the picture” I referred to earlier.)

Figure 5 combines these two layers as a two-axis grid: (1) the “composite product profit margin” of what each customer purchases (reflecting net prices to the customer) and (2) their *costs to serve*. Individual customers (or grouped cluster of customers with similar traits) are located at an intersection where the circle diameters reflect each customer’s revenues. Figure 5 debunks the myth that customers with the highest sales volume are also generating the highest profits. The objective is to generate more profits from all customers regardless of their intersection location. This is represented by driving customers to the upper-left corner of the grid. Examples of actions that will do this are surcharge pricing, up-selling, and cross-selling.

When analytics software is applied, finance and marketing teams together can determine “next-best-offer recommendations” based on a market basket analysis of product or service transactions. The analysis uses “association rules,” which identifies items that frequently follow other items in transaction-based data. For example, if customers have purchased items A and B, they often also purchase item C. With that insight, companies can recommend offers to customers who have only purchased items A and B.

Note that migrating customers to the grid’s upper-left corner is equivalent to moving individual data points in the “profit cliff” profile in Figure 2 from right to left.

Figure 5: Migrating Customers to Higher Profitability



Knowing where customers are located on the matrix requires ABC data.

A critical reason for knowing where each customer is located on the profit matrix is to protect the most profitable customers from competitors. Because so few customers typically account for a significant portion of the profits, the risk exposure from losing them is substantial. In Figure 2, the farther to the left side of the “profit cliff” profile distribution curve that the curve’s peak is located, the more sensitive the bottom line corporate profit is to competitor attacks from winning a company’s key customers.

Options to Raise the Profit Cliff Curve

What does a company do with the customer profit information? In other words, what actions can an organization take to increase profits from its customers?

Although this is only a partial list, a company can increase profitability by doing the following:

- ◆ Manage each customer’s “costs to serve” to a lower level;
- ◆ Establish a surcharge for or reprice expensive “costs-to-serve” activities;
- ◆ Reduce services minimally valued by customers;
- ◆ Introduce new products and standard service lines;
- ◆ Raise prices (which may not be feasible in competitive markets);
- ◆ Abandon unprofitable products, services, or customers;
- ◆ Improve business processes with higher productivity;
- ◆ Offer the customer profit-positive service-level options;

- ◆ Increase costs on activities for which a customer shows a preference;
- ◆ Up-sell and cross-sell the customer’s purchase mix toward richer, higher-margin products and service lines; or
- ◆ Discount to gain more volume with low “costs-to-serve” customers.

It’s important for anyone interpreting the profit-distribution diagram to understand the following key issues about it before acting hastily, which can result in bad decisions:

- ◆ This snapshot view of a time period’s cost doesn’t reflect the life-cycle costs of the products, service lines, or customers that have consumed the resource and activity costs for that particular time span. For example, a new product may be in its shake-out period with imminent cost reductions to it and low sales volume that will grow. In the next time period’s snapshot, the product will move to the left of the “profit cliff.”
- ◆ In some cases, some products deliberately are sold as a loss to generate higher sales of the more profitable products.

Expand the Function

Much has been written about the increasing role of CFOs as strategic advisors and their shift from bean counter to bean grower. Now is the time for the CFO’s accounting and finance function to expand beyond financial accounting, reporting, governance responsibilities, and cost control. They can support sales and marketing by helping them target the more attractive customers to retain, grow, and win back and to acquire the relatively more profitable and valuable ones. **SF**

This article updates part of *Activity-Based Cost Management: An Executive’s Guide* by Gary Cokins; Copyright © 2001 John Wiley & Sons, Inc. Adapted with permission of John Wiley & Sons, Inc.

Gary Cokins, CPIM, is IMA’s executive-in-residence and is founder and owner of the consulting firm Analytics-Based Performance Management LLC in Cary, N.C. (www.garycokins.com). A thought leader in EPM, business analytics, and advanced cost management, he previously was a consultant with Deloitte, KPMG, Electronic Data Systems (EDS), and SAS. He also is the author of numerous books and articles and is a long-time member and active committee member of IMA. You can reach Gary at (919) 720-2718 or gcokins@garycokins.com.