WHITE PAPER III

Implementing Activity-Based Cost Accounting, Customer Profitability, and Product-Line Analysis In a Distribution Business

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IMPLEMENTING ACTIVITY-BASED COST ACCOUNTING, CUSTOMER PROFITABILITY, AND PRODUCT-LINE ANALYSIS IN A DISTRIBUTION BUSINESS

By

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and

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You understand the "what" of Activity-Based Cost (ABC) accounting and Customer and Product-Line Profitability Analysis (CPA)—you attended a seminar, you watched the National Association of Wholesaler - Distributors' national satellite broadcast *Succeeding with Technology: Tools for Wholesaler-Distributors*, or you read an article or book on the subject. Now you're ready to implement ABC and/or CPA in your business. You are faced with the "how" question. This article address the question of how to implement ABC and CPA in a wholesale-distribution firm or in the distribution function of a manufacturer.

We will present strategies for implementing ABC and CPA in small, medium, and large-size businesses. Our purpose is to give you a road map with three routes to three destinations: the routes are "do-it-yourself", "do it with others", and "do it with consultants"; the destinations are customer profitability analysis, product-line profitability analysis, and business process analysis (a.k.a. process engineering). Depending on the resources available, the size, and complexity of your business; one or a combination of our routes should fit your strategic profitability and cost management goals.

In this article, which builds on our prior work on strategic profitability and cost management, we assume that you understand the basics of ABC accounting and how it relates to Customer Profitability Analysis, Product-Line Profitability Analysis (we combine Customer and Product-line Profitability Analysis into the acronym "CPA"), and business process analysis. If you are not comfortable with your understanding of these tools, we recommend one or more of these sources:

- Books:

  Roger K. Harvey, *Activity Accounting and Customer Profitability Analysis for Distributors*, 1994, Value Associates, Ltd., Voice: 970-963-1444, Fax: 970-704-9740. (Updated version to be published.)

Peter L. Mullins, *Measuring Customer and Product Line Profitability: Beyond Turn & Earn*, 1984. Available from Value Associates, Ltd., Voice: 970-963-1444, Fax: 970-704-9740. (Updated version to be published.)

Tom Pryor & Julie Sahm, *Using Activity Based Management for Continuous Improvement*, 1996, ICMS, Inc., Voice: 817-633-2873.

- Video Tape: *Succeeding with Technology: Tools for Wholesaler-Distributors*, NAW, Voice: 202-872-0885, Fax: 202-785-0586

These are sources of more detailed information on the "what" of ABC and CPA. Before presenting our road map for implementing strategic profitability and cost management tools in your business, however, we will offer a brief review of the tools themselves. Readers familiar with the basics should move to the section entitled "Stages and Paths for Implementation."

BRIEF REVIEW OF THE BASICS

Transactions Analysis, Cost Driver Analysis, Activity-Based Cost Accounting, Customer Profitability Analysis, Product-Line Profitability Analysis, and Business Process Analysis are all "tools" for strategic profitability and cost management.

Transactions Analysis does not directly measure costs and expenses nor does it directly assign costs to customers or vendors. Transactions Analysis attempts to define measures that are directly associated with costs or which drive costs. Examples of Transaction Analysis measures: average order size (defined as Gross Profit per Order), average line extension (defined as Gross Profit per Invoice Line), average Gross Profit per Defined Unit (e.g., delivery, employee, SKU, hour, etc.). Transaction Analysis measures are tracked by customer or vendor and linked to assigned investment by customer or vendor (e.g., accounts receivable or inventory by product-line). Customers placing a lot of small orders (i.e., small average order size) and taking a long time to pay their accounts (i.e., high average DSO) are posited to be high cost-to-serve customers. Vendors whose product-lines generate a lot of small orders and require high inventory investment are posited to be high cost-to-carry vendors. When Transaction Analysis measures are used in conjunction with other gross profit measures (margin, dollars, and growth), customers and vendors may be effectively evaluated in term of their attractiveness to your firm.

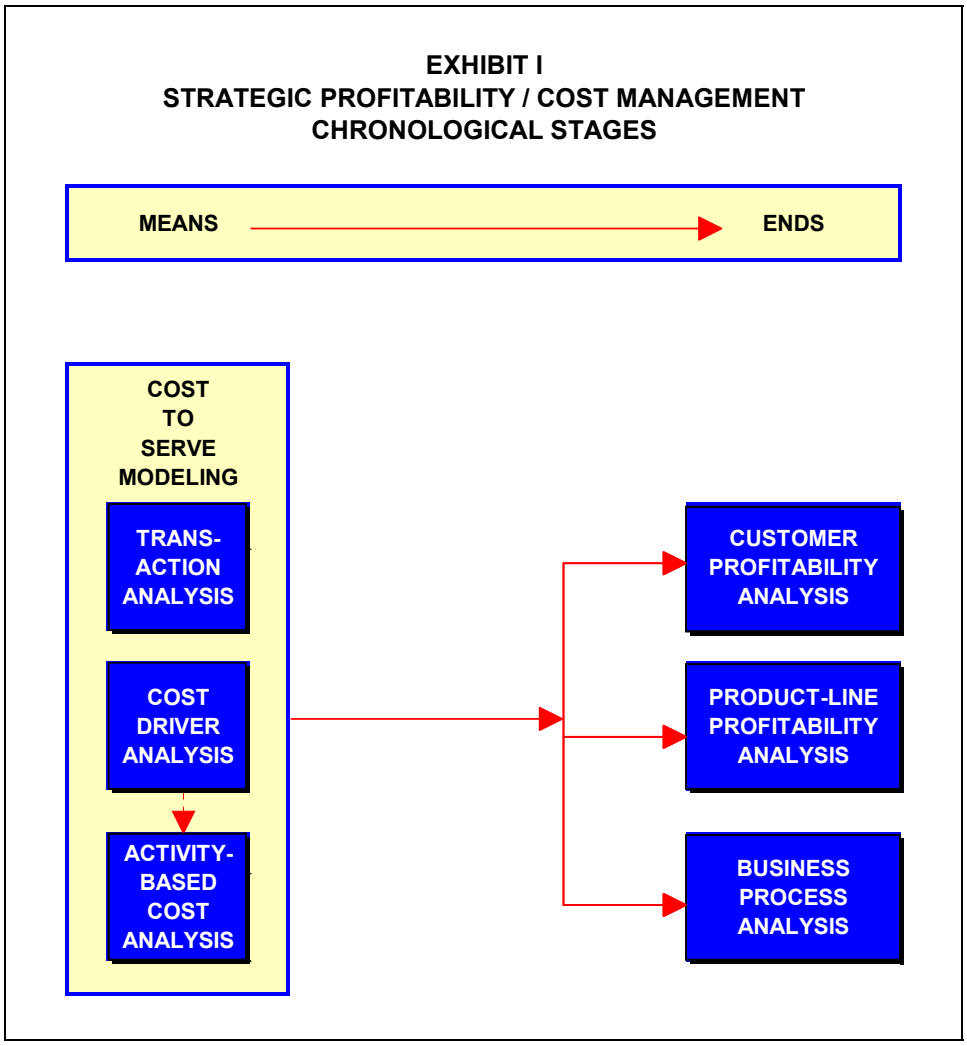
Cost Driver Analysis and ABC accounting are "tools" for gathering data on your costs of doing business: costs to serve your customers, costs to purchase, carry, and sell your vendors' products and services, and your costs to engage in various "activities" (ordering products, receiving products, selling products, delivering products, etc.). Unlike Transaction Analysis, Cost Driver Analysis and ABC accounting measure the actual costs-to-serve a customer or to carry a vendor's products.

A typical activity in many distribution businesses is making a delivery; the company's delivery cost tends to increase with the number of deliveries. The "number of deliveries" is therefore defined as a "cost driver." Cost Driver Analysis involves

gathering costs associated with the delivery activity and the total number of deliveries to determine the average cost per delivery. The cost per delivery is benchmarked and, if a benchmark gap exists, studied and re-engineered to reduce the cost per delivery. Individual tasks associated with delivery may be analyzed and re-engineered (e.g., loading, routing, unloading, etc.).

ABC accounting links together activities with a common purpose into processes such as the processes of selling products and services, order taking and fulfillment, obtaining products, and managing inventories and deliveries. A typical process cuts across several functions. For example, the process "order taking and fulfillment" involves activities within the inside sales, warehouse, and delivery functions. ABC accounting studies processes, not just functions, for the purpose of increasing efficiency and reducing costs. ABC accounting is much more extensive than Cost Driver Analysis because it considers the cost of all processes in your firm rather than just the cost of selected drivers in traditional functional areas.

Exhibit I shows Transaction Analysis, Cost Driver Analysis, and ABC accounting as "means" of strategic cost management because they provide the data needed to engage in CPA and business process analysis.



The "ends", or purposes, of Cost Driver Analysis and ABC accounting are Customer Profitability Analysis, Product-Line Profitability Analysis, and Business Process Analysis or any combination of these three activities.

Customer Profitability Analysis is a three-step process which involves:

1. Measuring the Contribution (Gross Profit minus Direct Costs) or Direct Customer Profit (Contribution minus Overhead Costs) and Investment for each of your customers or customer groups
2. Defining quantitative performance measures which reflect the attractiveness of individual customers or customer groups (i.e., measures at the customer level such as profitability, growth, cash flow, potential, etc.)
3. Evaluating the many dimensions of customer attractiveness using ranking, scoring, and graphical procedures

Product-Line Profitability Analysis (or Vendor Profitability Analysis) involves the same three steps as Customer Profitability Analysis but the objects of the analysis are individual products, product groups, and vendors rather than customers. Both Customer

and Product-Line Profitability Analysis (CPA) require Cost Driver Analysis *or* ABC accounting to provide costs for measuring Contribution and Direct Profit.

A third "end" or purpose of Cost Driver Analysis and ABC accounting is Business Process Analysis. Business Process Analysis is also known as "Activity Analysis," "Process Engineering," or "Business Re-Engineering." Business Process Analysis has its roots in manufacturing, where material and paper-handling tasks are grouped into activities and activities are grouped into processes. Flow-charts document the tasks, activities, and processes. Classification schemes identify value added and non-value activities as well as primary and secondary activities. Cost data are gathered by activity (hence the name Activity-Based Cost accounting) rather than by General Ledger accounts. Process costs, cycle times, and quality are measured and benchmarked. The ultimate purpose of Business Process Analysis is to remove excess costs and inefficiencies from processes as well as reduce cycle times, improve service levels, and raise quality levels. Process cost reduction, cycle time, service level, and quality become "ends" in themselves; costs may or may not be assigned to customers, product-lines, or vendors for the purpose of profitability analysis.

Business Process Analysis may be internally firm-focused or channel-focused. When processes and activities are studied up and down the distribution channel (e.g., manufacturer ⇔ wholesale-distributor ⇔ end user), the name given to Business Process Analysis is Value Chain Analysis, Efficient Consumer Response, or Channel Cost Analysis. In this venue, the purpose of Business Process Analysis is to increase the efficiency of the whole channel by cutting out redundant activities and costs. The channel interfaces become the target of the analysis rather than internal activities of the firm, although cutting out channel interface activities usually results in reducing internal firm costs.

This has been a quick overview of "tools-of-analysis" for strategic cost and profitability management. Readers wishing more detail on the "tools" themselves should consult the sources cited previously. We will now present three paths for implementing Cost Driver Analysis and/or ABC accounting into your organization. Although Transaction Analysis is a viable path to CPA for companies not wishing to trace costs directly, we have not included it in our framework; we are limiting our discussion to "means" that directly trace cost data either to cost drivers or processes.

STAGES AND PATHS FOR IMPLEMENTATION

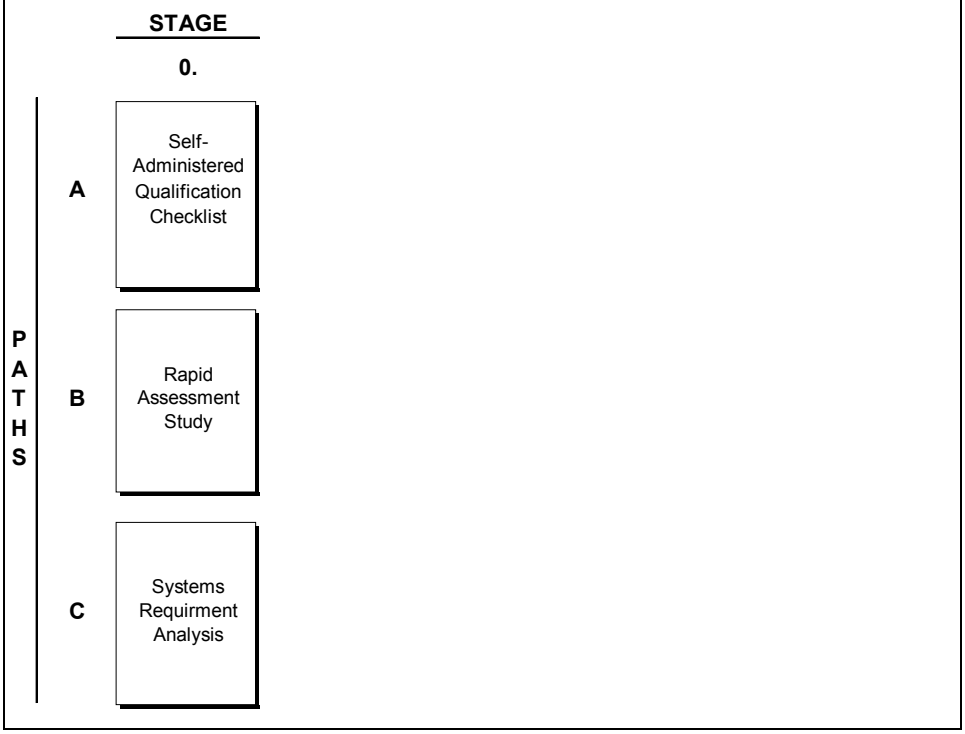
Our road map starts with a pre-trip assessment of your firm's resources for building ABC and CPA tools. We call this Stage 0. Successful implementation of ABC or CPA (Stages I through III) will only be possible if you have the necessary resources and commitment as determined in the Stage 0 assessment. If you are unwilling or unable to commit the necessary resources, then we suggest staying off the ABC and CPA highway.

STAGE 0: ASSESSMENT

Exhibit II-A shows three entry points (Path A, B, and C) for the assessment stage. Path A, B, and C are also the entry points to the other stages on our road map.

EXHIBIT II-A

LOGICAL FRAMEWORK FOR IMPLEMENTING STRATEGIC PROFITABILITY / COST MANAGEMENT



Path A is the "do-it-yourself" (DIY) entry point. It is especially appropriate for firms with a limited budget for outside consultants or for firms in business lines where their industry trade association has not yet developed industry workbooks or computer models for Cost Driver Analysis, ABC or CPA.

Path A starts with either an informal or formal assessment of your information and accounting systems, personnel capabilities and availability, organization structure, and financial resources. It is outside the scope of this article to present a detailed assessment instrument, but the following is a sample of the type of questions that should be addressed before driving down the ABC and CPA "tools-of analysis" entry ramp:

1. What cost driver data (e.g., number of invoices, number of invoice lines, number of deliveries, individual product weight or volume characteristics, etc.) is your

current Information System (I/S) capable of capturing? (This and other questions are non-dollar or activity measuring questions.)

2. Can your current accounting system map expense and cost data to activities and processes in your business? If yes, how much effort is involved in using the system's mapping capabilities? If no, what would be the cost of modifying your current system software to map cost data to activity pools versus passing cost data to a PC or client-server network which will do the mapping? (This and other questions are cost assignment/allocation questions where your dollar cost and expense data are mapped to accounts other than those appearing on your financial statements … accounts which ABC accounting are refers to as "activity pools.)
3. Who in your organization has the time and ability to undertake the initial project of gathering costs, evaluating or developing software, and putting in place systems and procedures for cost analysis and evaluation? Who in your organization will maintain the systems and modify them to reflect the on-going needs of your organization?
4. What capital investment monies are you able to allocate to the initial project? How much are you willing to spend on an on-going basis to maintain and modify your ABC and CPA systems?

In some small firms, with straight-forward processes and accounting systems, the cost of formal modeling outweighs the benefits. This is especially true of ABC accounting undertaken for the purpose of business process analysis. A small firm's activities and processes may be simple enough that cost and efficiency improvements may be found by studying functional operations. These firms can gather cost driver data and then benchmark their costs against data in the industry's cost of doing business survey or performance analysis reports (PAR).

Although small and medium size firms may be able to survive without formal ABC accounting, it would be hard to argue that they will survive without formal customer and product-line profitability analysis. Regardless of your firm's size, we believe that you must to move to Stage I through III on our road map to engage in customer and product-line profitability analysis.

Paths B and C of the assessment stage (Stage 0) suggest a more formal (and expensive) study of resources and capabilities. A "Rapid Assessment Study" is an outside, expert assessment of your firm's information technology, accounting system, information system, software, and hardware. These studies are usually conducted by an outside consulting firm specializing in I/S technology or ABC accounting. They extend over a period of two to six weeks. For example, one such firm is IBM's practice group which conducts Rapid Assessment Studies (as well as the "Systems Requirements Analysis" studies described in the next section) for individual firms, consortiums of firms, and industry associations.

Stage 0's Path C goes beyond evaluating I/S software and hardware—it includes evaluating and defining the strategic profitability and cost management needs of the entire organization. The "Systems Requirements Analysis" identified for Path C is

broader in scope than simply assessing the organization's capability to engage in ABC or CPA; it looks at the total information needs and decision-making requirements of your organization. A "Systems Requirements Analysis" is always conducted by an outside consulting firm because of the breadth and depth of the expertise required. Because a "Systems Requirements Analysis" is broader and requires more time than a "Rapid Assessment Study," it may take from two to four months to complete.

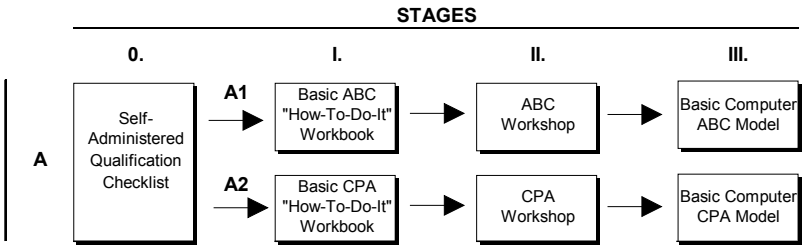
Stage 0 of our road map suggests you do an initial assessment of your information systems, personnel, organization, and financial ability before you begin thinking about implementing ABC or CPA. Depending on the money you are willing and able to spend, and depending on your need for outside consulting, you enter the ABC and CPA highway via Path A, B, or C. If your firm is small or medium size, or if you have limited resources which you can invest in the project, consider entry Path A; if you are a larger or geographically dispersed firm with multiple branch operations, then consider entry Paths B or C. As we will see later, Path B assumes that your firm is part of a consortium of firms or an association that shares the cost of developing an "industry" model. Path C is for the large firm that wishes to "go it alone."

PATH A: DO-IT-YOURSELF

The complete road map for Path A is shown in Exhibit II-B. We have named Path A the "do-it-yourself" (DIY) because the primary responsibility of designing and implementing either ABC or CPA or both rests with people within your organization. The outside help you seek will be educational so that you can DIY. The advantages of taking Path A are obvious—out-of-pocket costs are lower and you are directly involved in the development of tools your organization will be using. The disadvantages are the time it takes to "go live" with these tools, potential problems with design, and possibly higher costs when you value your own and others' time. The ultimate problem with the DIY path is you may end up not doing it at all.

EXHIBIT II-B

ROADMAP FOR IMPLEMENTING STRATEGIC PROFITABILITY / COST MANAGEMENT



We divide Path A into Path A1 and Path A2, depending whether your goal is an ABC model to be used primarily for business process analysis or a CPA model. If your goal is

a CPA tool, then you will need to go down both Path A1 and Path A2—Path A1 to provide the data to use in your CPA model shown as the end point of Path A2. (The other alternative, not covered in our *direct* cost framework, is to use Transaction Analysis as the path to CPA.)

Business process analysis—the goal of Path A1—may be accomplished by building an ABC computer model of your processes and activities costs or, less formally, by measuring and benchmarking cost drivers in your business (e.g., cost per invoice, cost per order, cost per delivery, etc.). To build formal or informal cost models, Stages I and II call for you to educate yourself using "how-to-do-it" workbooks and workshops. As cited at the beginning of this article, the authors have published one of the few ABC books that focus solely on ABC accounting for wholesale-distributors. Even this book is more focused on CPA as the "end" of ABC accounting rather than on using ABC for business process analysis. The authors also present a three-day workshop on ABC accounting and CPA.

ABC "how-to-do-it" workbooks usually accompany workshops offered by ABC software vendors. One ABC organization with a DIY philosophy and more emphasis on education than selling software is ICMS, Incorporated. They offer a variety of seminars devoted to teaching companies how to develop their own ABC accounting systems and how to use those systems for process analysis. Contact information for ICMS is cited earlier in this article. Acorn Systems sells one of the highest rated software products on the market and also offers extensive implementation consulting.

Path A2 in Exhibit II-B is a road map for customer profitability and/or product-line profitability analysis. Path A2 assumes cost information is available from Path A1, either through informal cost driver analysis or through more formal ABC modeling. As discussed in our previous work, customer profitability and product-line profitability are very closely related. If you start with product-line profitability, you are 80% to 90% down the path to customer profitability (and vice versa) because most of the same costs and concepts are used for both tools. Once you have determined your costs, which is most of the work, you assign them to either products, customers, or both for your CPA modeling.

With the exception of the authors' ABC/CPA Executive Management Seminar, the ABC workshops cited for Path A1 do not provide any depth in customer profitability analysis for wholesale distributors. Our workshops seminar provides both workbooks and computer software for performing CPA because the sessions, notebook materials, and text books used in the seminar focus on ABC accounting for customer and product-line profitability analysis.

The enabling technology for Path A (as well as for Path B and Path C) is information systems technology. Without today's computer modeling and software capabilities, it would be impossible to do ABC accounting or CPA. Unfortunately, the DIY path offers few affordable and dedicated computer tools for ABC and CPA.

The place to start your search for ABC and CPA computer-based tools is with your I/S or financial accounting system vendor. If your goal is customer or product-line profitability, be certain to look for capabilities beyond simply gross profit by customer or

gross profit by product-line or vendor. Neither of these gross profit-focused I/S capabilities are what we consider CPA modeling—you must be able to assign costs and operating expenses below the gross profit line to individual customers and/or product-lines to do meaningful CPA. Ideally, you need "contribution" or "direct customer/ product-line profit" to do meaningful CPA. Once you have cost, expense, cost driver, and activity data by customer and/or product-line, you also need analytical capabilities to do customer and product-line evaluation. These analytical capabilities include specific customer/product-line performance measures as well as querying, report generating, and graphing capabilities.

Don't be surprised or disappointed if these capabilities are not available from your I/S or accounting system software vendors. Most of these companies are in the business of providing financial accounting software and not managerial accounting software. ABC and CPA tools are decision support/executive information system applications and not traditional I/S applications. This observation applies to computer-based ABC and CPA tools for Paths B and C as well as Path A.

Firms on Paths A, B, or C will likely need to go outside their host computer I/S and accounting systems for ABC and CPA software solutions. ABC Technologies, for example, offer software packages for PC's and client-server networks; ICMS, Inc. offers a package for PC's. These two packages are particularly well suited to business process analysis. Value Associates, Ltd. offers a package for customer profitability analysis but assumes that the cost data is available from a separate ABC system or from cost driver analysis. Value Associates' software package, called CPA, has no capabilities to perform business process analysis.

Firms traveling along Path A that have mastered the Stage II and Stage III learning tasks may consider building their own spreadsheet models. Lotus 1·2·3 and Excel offer excellent tools for doing ABC costing and CPA, separately or in combination. It is often a matter of coding computer spreadsheets to perform the calculations shown in workbooks or paper worksheets. Because spreadsheets can import dollar and activity data from a variety of mainframe and PC sources, they are a powerful tool for ABC and CPA modeling.

Path A is truly a DIY route on our road map to customer, product-line, and business process analysis. It is designed for those firms wishing to minimize the time and cost of bringing in outside consultants. We have identified information sources and software tools to make the road smoother but it still is a road where people within your organization are totally in the driver's seat. They must not only learn how to build the car but also must drive it down the highway. The next two paths on our road map depend on outside consultants to do the building and initial driving. As the consultants might say, with Paths B and C, "you can leave the driving to us."

PATH B: DO-IT-WITH-OTHERS

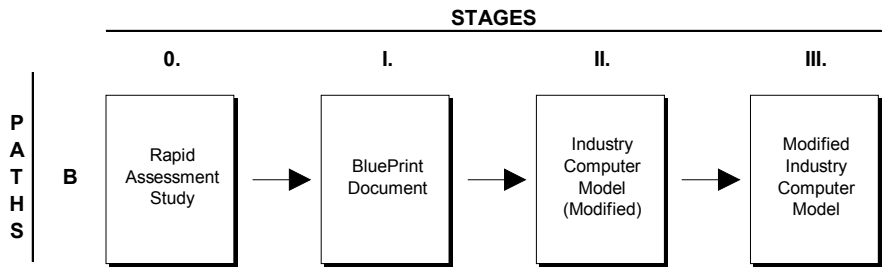
We call Path B "do-it-with-others" because it involves working with other companies in your line of business to build an "industry model" for doing ABC or CPA or both. The

"others" in "do-it-with-others" may be members of a trade association, buying group, I/S users group, or consortium of similar firms.

The near end-point of this route (Stage II) is an *industry* ABC or CPA model with accounts and structure that is common to all members of the company group; the end-point (Stage III) is modifying the *industry* model to the specific structure and needs of your organization. Economics of scale and cost sharing are the financial reasons for pursuing Path B as an implementation strategy.

EXHIBIT II-C

ROADMAP
FOR
IMPLEMENTING STRATEGIC PROFITABILITY / COST MANAGEMENT



As previously discussed, Path B starts with a Rapid Assessment Study. Because this path involves a group of firms, a Rapid Assessment Study is usually conducted by an outside firm using a representative sample of firms from the group. The consultant will visit each sample firm and assess the firm's I/S, accounting system, hardware, and software capabilities. This stage ends with a written assessment of the typical firm's or average firm's capabilities to do ABC accounting or CPA modeling.

The assumption of this approach is that the firms in the group are "similar"—that they display similar capabilities and needs. If this is not the case, the recommended group solutions of the following stages will not "fit" the needs of individual firms in the group.

For Stage I on Path B, the consulting firm will draft a Blue Print document. This document will describe the common structure, functions, processes, activities, cost drivers, product categories, and customer segments of the industry group. The Blue Print will present the design and specifications for a generic ABC, CPA, or combined system. The system will be generic yet specific to the typical characteristics of members of the group. The Blue Print may also include instructions and worksheets to help each member build their own system using the DIY computer tools discussed in the previous section. Most likely, however, the Blue Print will be used to design and build an "industry" computer model to do ABC, CPA, or both.

Stage II is building an "industry-specific" computer model. If the purpose of the model is business process analysis through ABC accounting, the industry-specific model would start with a commercially available ABC software product, such as one available from Acorn Systems or ICMS, and customize it to the industry with pre-defined accounts, processes, activities, and tasks. The model might even include benchmark data if such data is available for the industry. If the purpose of the model is CPA, then the industry-specific model might start with Value Associates' generic CPA model or might be built from scratch using a database language such as FoxPro or Microsoft Access or a spreadsheet and spreadsheet language such as Lotus 1-2-3 or Microsoft Excel. An industry-specific ABC, CPA or combined model will provide each firm in the group with a running software package ready to be adapted to each firm's structure and seeded with the firm's own data. The goal of Stage II should be an industry-specific generic model that can be customized to a specific firm's needs without outside support—a DIY customization to an industry-specific model.

Stage III, the final stage on Path B, is the individual firm modifying the industry-specific model to match its structure, processes, functions, activities, product categories, and customers. Each firm will conduct its own data gathering activities to provide the model with its cost parameters (e.g., cost of deliver, cost to take an order, cost to make a sales call, etc.). Each firm will also link the model to its I/S and accounting system via a simple file transfer. This will be an on-going link to provide the model with activity data for a pure ABC model or activities per customer (e.g., number of deliveries, number of orders, number of sales calls, etc.), sales per customer, and gross profit per customer for customer profitability modeling. Once modified with firm-specific structure and seeded with firm-specific data, the ABC, CPA, or combined model will produce queries, standard reports, and graphs. The model should also have capabilities to accommodate user-defined performance measures, reports, and graphs.

Path B is designed to produce firm-specific tools-of-analysis built on a shared industry model with shared development costs. By the time Stage III is complete (i.e., the industry computer model is built), about 50% of the work required by the individual firm is complete. Each firm shares in the costs for Stages I through III through a consortium agreement. This sharing, in fact, is the major selling point for Path B.

The assumption of Path B is that the firms in the group have more or less similar structures, are willing to accept the development time-line of the group as their own, and are willing and able to modify the industry model to their specific needs. If an individual firm is unwilling or unable to meet these assumptions, or if the firm is large enough to engage outside consultants directly, then Path C becomes a viable alternative for entering the tools-of-analysis highway.

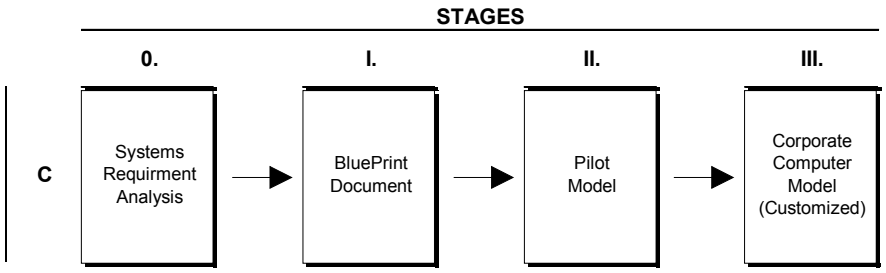
PATH C: DO-IT-WITH-CONSULTANTS

The third possible path on our implementation road map is DIY but with outside consultants. Our assumption for Path C firms is that no association or consortium arrangement is practical, or that your operations are complex and unique, or that time to

implementation is critical. The cost of this path is probably higher than the other two paths but your end-point should be a powerful, firm-specific model.

EXHIBIT II-D

ROAD MAP
FOR
IMPLEMENTING STRATEGIC PROFITABILITY / COST MANAGEMENT



Stages 0 and I on this route are no different from those discussed previously. These stages are assessment, design, and planning stages but are firm-focused rather than industry- or group- focused. Since firms traveling along this path will be larger and more complex, Stages 0 and I lead to developing a Pilot Model. The Pilot Model might be an ABC accounting system applied to a branch or small segment of operations or it might be a CPA model applied to a subset of customers or products. The Pilot Model is a learning and shake-out process before an all-firm model is rolled out to all branches, all customers, or all products. The end-point of Path C is a model for the entire company.

A corporate model for ABC, CPA, or both tools might reside on one of several platforms. These tools-of-analysis might be a:

- module included as part of the host computer I/S and accounting systems
- data warehouse or client-server
- free-standing or networked PC

The ideal platform for ABC accounting and CPA is your host computer I/S and accounting system. The host computer platform offers a seamless interface between your financial data and activity data, between your financial accounting system and your managerial accounting system, and between your host computer system and your existing user interface. The host requirements on your software vendor for CPA are reasonable and feasible, but those for ABC are difficult if not impossible because of the unique system design requirements for ABC (the reason that separate ABC software vendors have emerged in the last six years).

In the event that your company's host computer I/S and accounting system software provider has a CPA module available for your existing system, Stages II and III would involve installation of the module and populating it with your activity, customer, and product-line data. Based on the authors' limited research of software vendors offering these modules, however, it is unlikely that CPA modules are currently available from your vendor. Nevertheless, we recommend that you pursue this first because it offers the possibility of a seamless interface between your host systems and customer and product-line profitability. The other alternatives—client-server, data warehouse, and PCs—require moving data from your host system to another system.

The second platform is installing a data warehouse or client-server network and populating the warehouse or server with financial, activity, customer, and product-line data. If this platform is selected, ABC accounting and CPA would probably be made part of an Executive Information System (EIS). The EIS would provide decision support tools for many applications, including customer, product-line, and business process analysis. As firms migrate their host computing operations to client-server networks, this alternative becomes very attractive. The additional hardware cost of building ABC accounting and CPA models on the server becomes minimal.

The final platform—PCs or networked PCs—is probably the most feasible alternative today. ABC and CPA software are not available for most host computer I/S and accounting systems and very few distributors have moved to client-server networks for their computing, but most distributors have PCs or PCs networked to their host computer systems. All current ABC and CPA vendors' software run on PCs. In addition, the PC platform provides powerful and flexible database management and spreadsheet languages for the firm or outside consultants who want to build their own software.

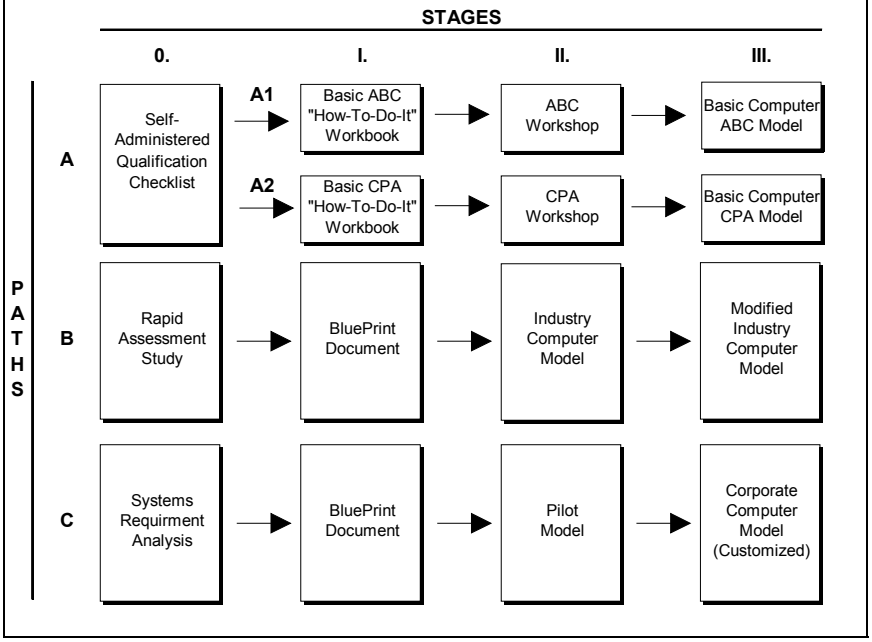
Whatever the platform, the goal of Path C is a custom-built ABC accounting and/or CPA model on which the firm can perform customer, product-line, or process analysis. Path C is probably the most expensive path to follow but does offer the highest potential payoff in terms of suitability, timeliness, and effectiveness.

SUMMARY:

Exhibit II brings Exhibits II-A, II-B, and II-C into a single road map showing each stage on the route to strategic profitability and cost management. Our road map shows only paths that involve measuring costs directly. As we discussed in our prior work and in the "Brief Review" section of this article, if you want to engage in CPA using indirect measures of cost, you can use Transaction Analysis. But if you are willing and able to measure costs directly using either Cost Driver Analysis or ABC accounting, then the road map shown in Exhibit II should guide you along the path to customer profitability, product-line profitability, and business process analysis.

EXHIBIT II

LOGICAL FRAMEWORK
FOR
IMPLEMENTING STRATEGIC PROFITABILITY / COST MANAGEMENT



Finally, in Exhibit III we have developed a variation of a Product-Market Matrix to help you decide which Path on Exhibit II may be appropriate for your firm. For our Product-Market Matrix in Exhibit III, we have Paths A, B, or C for the usual listing of products and services. We have defined markets for the Paths as different sized distribution firms rather than market segments for products or services.

EXHIBIT III

PRODUCT - MARKET MATRIX
FOR PATHS TO
STRATEGIC PROFITABILITY / COST MANAGEMENT

PRODUCTS (PATHS)	MARKET SEGMENT: Small Distributors Sales < $10mm	Medium Distributors Sales Between $10 - $100mm	Large Distributors Sales Between $100 - 500mm	National Distributors Sales > $500mm
A	X	X		
B		X	X	
C			X	X

To use the Matrix, simply go down the column that fits your size firm. An "X" in a cell suggests a Path that you should consider in deciding what approach you should take for strategic profitability/cost management.

We caution you on using the Matrix to suggest the Path your firm "must" take for strategic profitability and cost management. Since only size is used to define the columns of the Matrix, the assumption is that size correlates with all the other conditions (e.g., financial resources, technical capability, commitment, etc.) that point to one or another of the Paths on our road map. For example, it may be that a large firm with sales between $100 & $500 million may want to start simply with Cost Driver Analysis or even Transactions Analysis rather than with an industry model (Path B) or its own customized model (Path C) as suggested by Exhibit III. Like our Exhibit II road map, the Product-Market Matrix offers some additional guidance in making the decision on which path to take down the strategic profitability/cost management road.

In conclusion, we have developed a detailed map for taking your company down the path to customer profitability, product-line profitability, and business process analysis. Like any road map, there is more than one way to reach a destination. It may even take a combination of paths. Hopefully, our road map will help you make the decision which path is appropriate for your company.

ABC - CPA
SOFTWARE REFERENCES/WEB SITES

Path A1: *Quick ABC* published by Acorn Systems, Inc., Houston Texas. 713-963-9000. www.acornsys.com

Path A2: *CPA for Windows* published by Roger Harvey, Value Associates Ltd., Carbondale Colorado. 970-704-1444. www.valueassociates.org

Path B: *CMS-PC* published by Tom Pryor, ICMS, Arlington Texas. 817-633-2873. www.icms.net

Path B&C: *EasyABC Plus* published by ABC Technologies Inc., Beaverton Oregon. 503-626-4895. www.abctech.com