

Business Marketing: Understand What Customers Value

by James C. Anderson and James A. Narus



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Gauging—and communicating—
what your products and services
are worth to customers has
never been more important.

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by James C. Anderson and
James A. Narus

“Everything is worth what its purchaser will pay for it.”

Publilius Syrus, first century B.C.

HOW DO YOU DEFINE VALUE? CAN YOU MEASURE IT? What are your products and services actually worth to customers? Remarkably few suppliers in business markets are able to answer those questions. And yet the ability to pinpoint the value of a product or service for one’s customer has never been more important. Customers—especially those whose costs are driven by what they purchase—increasingly look to purchasing as a way to increase profits and therefore pressure suppliers to reduce prices. To persuade customers to focus on total costs rather than simply on acquisition price, a supplier must have an accurate understanding of what its customers value, and would value.

Put yourself, for a moment, in the role of a commercial grower. Two suppliers are trying to sell you mulch film: thin plastic sheets that are placed on the ground to hold in moisture, prevent weed growth, and allow melons and vegetables to be planted closer together. The first supplier comes to you with this proposition: “Trust us—our mulch film will lower your costs. We’ll provide superior value for your money.” The second supplier says, “We can lower the cost of your mulch film by \$16.83 per acre,” and offers to show you exactly how. Which proposition would you find more convincing?

James C. Anderson is the William L. Ford Distinguished Professor of Marketing and Wholesale Distribution and a professor of behavioral science in management at Northwestern University’s J.L. Kellogg Graduate School of Management in Evanston, Illinois. He is also the AT&T ISBM Research Fellow at the Institute for the Study of Business Markets, located at Pennsylvania State University. James A. Narus is an associate professor of management at the Babcock Graduate School of Management at Wake Forest University in Charlotte, North Carolina. Their book, Business Market Management: Understanding, Creating, and Delivering Value, has just been published by Prentice Hall.

Many customers, like the commercial grower, understand their own requirements but do not necessarily know what fulfilling those requirements is worth to them. To suppliers, this lack of understanding is an opportunity to demonstrate persuasively the value of what they provide and to help customers make smarter purchasing decisions.

A small but growing number of suppliers in business markets draw on their knowledge of what customers value, and would value, to gain marketplace advantages over their less knowledgeable competitors. These suppliers have developed what we call *customer value models*, which are data-driven representations of the worth, in monetary terms, of what the supplier is doing or could do for its customers.

Customer value models are based on assessments of the costs and benefits of a given market offering in a particular customer application. Depending on circumstances, such as availability of data and a customer's cooperation, a supplier might build a value model for an individual customer or for a market segment, drawing on data gathered from several customers in that segment.

Customer value models are not easy to develop. But the experiences of suppliers that have built and used them successfully suggest several guidelines that we believe will be useful to any company attempting to define and measure value for its customers.

A Common Definition of Value

To measure value in practice, it is crucial to have a shared understanding of exactly what value *is* in business markets. Before we go into any detail about building value models, we need to provide a brief explanation of what we mean by *value*. Value in business markets is the worth in monetary terms of the technical, economic, service, and social benefits a customer company receives in exchange for the price it pays for a market offering. We will elaborate on some aspects of this definition.

First, we express value in monetary terms, such as dollars per unit, guilders per liter, or kroner per hour. Econo-

mists may care about "utils," but we have never met a manager who did! Second, by benefits, we mean net benefits, in which any costs a customer incurs in obtaining the desired benefits, except for purchase price, are included. Third, value is what a customer gets in exchange for the price it pays. We see a market offering as having two elemental characteristics: its value and its price. Thus raising or lowering the price of a market offering does not change the value that such an offering provides to a customer. Rather, it changes the customer's incentive to purchase that market offering. Finally, considerations of value take place within

some context. Even when no comparable market offerings exist, there is always a competitive alternative. In business markets, one competitive alternative may be that the customer decides to make the product itself rather than purchase it.

We can capture the essence of this definition of value in the following equation:

$$(Value_s - Price_s) > (Value_a - Price_a)$$

$Value_s$ and $Price_s$ are the value and price of the supplier's market offering, and $Value_a$ and $Price_a$ are the value and price of the next best alternative. The difference between value and price equals the customer's in-

Using Customer Focus Groups to Assess Value

Although field value assessment—gathering data firsthand whenever possible—is the most common way to build customer value models, not all situations lend themselves to it. Indeed, in some cases, the only way to obtain information for a value model is to rely on customer perceptions. The results of such assessments may not be as precise as those calculated from field value assessments; nonetheless, they can be quite effective. Consider a telecommunications company that used focus groups to gain a better understanding of the worth of an advanced intelligent network service called *single-number reach*.

Single-number reach is designed for people who want callers to reach them easily, even if they are not at a single location or phone number during the course of a day. Provided from a central office switch, the service allows a caller to seek the buyer of the service via a sequence of programmed telephone numbers. To determine the target market segment, the

company conducted four focus groups with itinerant Generation X professionals, some of whom had six telephone numbers on their business cards.

At the beginning of each focus group, the moderator demonstrated the service using a specially arranged prototype and then asked focus-group participants to write down their first impressions of the service and how much they would be willing to pay for it per month. The participants then engaged in a discussion of the service, how they would most likely use it, and so on. At the conclusion of the approximately hour-long discussion, the moderator asked the participants to write down their interest in the service using a ten-point scale and again, how much they would be willing to pay for it per month.

Although the company was interested in the actual monetary amounts given at the beginning and at the end, it was more interested in any pattern of differences between the amounts. An ominous pattern would be

centive to purchase. Simply put, the equation conveys that the customer's incentive to purchase a supplier's offering must exceed its incentive to pursue the next best alternative.

Building Customer Value Models

Field value assessments (also known by other names, such as value-in-use or cost-in-use studies) are the most commonly used—and, we believe, the most accurate—method for building customer value models. Field value assessments call for suppliers to gather data about their customers firsthand whenever possible. Clearly, however, conducting such direct research isn't always an option. In

step declines from the initial amounts to the ending amounts, indicating that the participants were initially intrigued with the service but, upon further consideration, concluded that it would not offer them much value. No significant change between the initial amounts and ending amounts would be a preferable pattern, provided the specified amounts were sufficiently large. The final pattern, considerable increases from the initial amounts to the ending amounts, would indicate that when the participants thought about the service, they recognized a greater potential value. That pattern would suggest the crucial role of business marketing communications in conveying the value of using the service to prospective customers.

The company used the results of the research to provide estimates of the service's worth to local telephone-service providers and to show those providers an approach for segmenting the market, targeting customers, and positioning the offering.

cases where field value assessments are not feasible, it is possible to gain a worthwhile understanding of value through such methods as direct and indirect survey questions, conjoint analysis, and focus groups, all of which rely primarily on customers' perceptions of the functionality, performance, and worth of a supplier's offering. (See the insert "Using Customer Focus Groups to Assess Value.") Below, we describe a process for building a value model using field value assessments.

Get started. Without a doubt, the most difficult customer value model that a supplier will build is its first one. Indeed, gaining a comprehensive understanding of the value of a market offering in a particular customer setting may appear monumentally difficult. But it can be done. The first step is putting together the right kind of value research team. The team should include people with product, field engineering, and marketing experience, and two or three forward-thinking salespeople. Having salespeople involved at the start is particularly important. They know the customer and how the offering is used; they also know which customers might be willing to cooperate in value research. Salespeople who are part of a value assessment initiative from the outset are also more likely to understand and appreciate it. They will, therefore, support the approach and can then persuasively relate their experiences to others in the sales force.

Selecting the right market segment to target is the next step. Because the supplier will need to conduct value assessments with at least two and perhaps up to a dozen customers to build an initial value model, it's a good idea to start with a segment in which the supplier has particularly close, collaborative relationships with customers, extraordinary knowledge of how customers use the offering in question, or relatively simple offerings.

Before approaching a customer, the team should think through what it will need from the customer and what the customer will gain, and be prepared to offer an incentive. For example, the supplier might offer to

provide the resources to gather the data at no charge to the customer and guarantee to share all findings. For most companies, the promise of shared research findings among participating customers in an aggregated or disguised manner is an irresistible incentive because it allows them to benchmark. W.W. Grainger, a major distributor of maintenance, repair, and operating supplies in North America, offered both incentives for the 15 companies that participated in its initial model-building effort.

Generate a comprehensive list of value elements. Value elements are anything that affect the costs and benefits of the offering in the customer's business. These elements may be technical, economic, service, or social in nature and will vary in their tangibility. How well a pigment disperses in a coating, for example, would be a technical element; providing a consolidated monthly invoice rather than a separate invoice for each purchase would be an economic element; design assistance would fall under the service heading; and ease of doing business with the supplier would be social. As it is generating the list, the team should consider the entire life cycle of the offering in question, from how the customer acquires and uses it to how the customer disposes of it when it is no longer needed. The list should capture all the potential effects that doing business with a supplier might have on the customer's business.

It's important to be as inclusive as possible. Leaving out elements, particularly those that might make the supplier's market offering look unfavorable next to the incumbent or next-best-alternative offering, will undermine the project's credibility.

By identifying as many elements as possible, the team will be able to gauge more accurately the differences in functionality and performance its offering provides relative to the next best alternative. Broadly stated categories, such as the cost of an hour of downtime in a customer's plant, may be easier to identify. But they tend to leave out cost elements, producing less valid estimates of worth. A bottle breaking in a filling

line causes downtime, certainly, but it also generates costs in scrap, discards, disposal, maintenance labor, cleaning and sanitizing chemicals, and so on, many of which tend to be buried in various plant-overhead accounts.

Often, the value research team will have to make trade-offs between relying on a customer's perception of

Frequently, the customer doesn't know that it has the data or information the supplier is looking for.

what all the relevant elements are and actually observing firsthand the ways in which the supplier's offering affects the customer. The customer's management may not have an accurate understanding of all the value elements associated with a particular offering. Believing that this was frequently the case, Alcoa Aerospace developed a program in which the company trained its salespeople in field-value-assessment methods and then gave them an assignment in which they had to comprehensively chart all the steps a customer took in acquiring, converting, and disposing of an Alcoa offering. Interestingly, the program gave salespeople a reason to approach customers: to ask them to cooperate in letting them do their assignments. The promise of enhanced knowledge of their own businesses provided an incentive for those customers.

Alcoa's initiative paid off. At the end of a two-month period, the salespeople got together and presented their findings to one another. The presentations allowed participants to learn from others' experiences and to exchange ideas about various customers' situations and the potential for future sales. The customers benefited because they learned about cost and benefit elements they had previously been unaware of—elements they could now factor into their own assessments of suppliers' proposals.

Gather data. With a comprehensive list of value elements in hand,

the next step is obtaining initial estimates for each element and finding out what each one is worth in monetary terms. Sometimes, suppliers find it useful to gather data by placing a team member in a key functional area of the customer's organization for a week or two in order to gain a better understanding of what is actually being done and where

things can go wrong during the day. For example, a supplier might have a team member work in the customer's receiving department. To allay any concerns on the part of the employee, customer management should tell them that the person is there to help out and to learn.

Frequently, the customer doesn't know that it has the data or information the supplier is looking for. The customer may think the information does not exist. In fact, the kind of data that needs to be pulled together in the analysis may reside on six or seven databases or systems in different functional areas.

Sometimes, the only way to find the data is for team members to ask around until they come across the individual who knows where the information is.

Focus groups made up of representatives from each functional area in a company can also be an effective mechanism for uncovering data. The Proaction Group, a Chicago-based consulting and strategy implementation company, recently conducted four internal focus groups at a customer company for exactly that purpose. To prepare themselves and the prospective focus-group participants, Proaction consultants met individually with each prospective participant before the session, learning what the issues might be and gathering some initial data. During the session, participants were asked what kinds of information they thought should be used in a value model and then where in the organization to look for that information. The consultants discovered sources of data in places that neither they nor the customer's management had previously identified.

The value research team also needs to be creative in finding other sources of information. Independent industry consultants or knowledgeable personnel within the supplier company can be good sources of initial estimates. San Diego-based Qualcomm, a supplier of satellite-based mobile communications systems for truck fleets, for example, drew on the American Trucking Association's research studies to provide ranges for some of the elements in the value model it developed for its OmniTRACS mobile communications system. When a supplier provides a service that mitigates the customer's risk, it can be useful to tap actuarial consultants to estimate what the cost of the potential difficulty would be.

The ease with which the team can establish monetary estimates for its value elements will vary. The value of social elements such as greater peace of mind, for example, is generally very difficult to express in monetary terms. In fact, most suppliers do not even attempt to assign monetary amounts to social elements. Instead, they put those elements aside and discuss them with the customer in a qualitative way after presenting quantitative results. Qualcomm does not assign monetary amounts to many less-tangible elements but still includes them in its analysis as "value placeholders." In this way, Qualcomm conveys to its customers that those elements are worth something and leaves open the possibility that a specific monetary amount might be ascertained in the future.

In any field value assessment, suppliers will find that some assumptions must be made in order to complete an analysis. These assumptions might be about the functionality or performance a market offering actually provides in the customer's specific setting, particularly for elements that are extraordinarily difficult or costly to measure. Or they might be about the monetary worth of perceived or measured differences in functionality or performance that an offering provides in the customer's setting. It is critical for the supplier to be explicit about any assumptions it makes. If the customer doesn't

know how or why the team assigned a certain value to an element—or is not encouraged to offer its own rationale if it disagrees with the supplier's estimates and then to join the supplier in researching a mutually acceptable solution—the supplier's credibility will be compromised.

Validate the model and understand variance in the estimates. After building the initial value model, the supplier should validate it by conducting additional assessments with other customers or potential customers in the market segment. Conducting further assessments enables the supplier to refine its value estimates and to understand better how the value of its market offering varies across customers' applications, capabilities, and usage.

What's more, as the supplier conducts additional value assessments, it will develop a greater understanding of where it needs to use firsthand data and where it can rely on customers' perceptions. (In soliciting perceptions, the supplier should remember that people are generally better at making comparative judgments [more or less than] than absolute judgments [it's worth X]. In other words, the supplier should provide the initial estimate and ask the informants whether that element is more or less valuable to them than the estimate.)

In conducting additional assessments, the supplier will also learn how the value its offerings provide varies across kinds of customers. The supplier can then build a database that contains value estimates—and the individual customer characteristics, which we call *descriptors*, that might affect those estimates—from all participating companies. Looking at all of the data together, the supplier can then determine which descriptors have more impact than others on the value customers receive from the offering in question. As a result, the supplier can choose to pursue those customers and prospective customers for which its offering will provide superior value.

Create value-based sales tools. Suppliers can not only use value models to inform and guide their own decision making but also to

create persuasive sales tools. One common sales tool is a value case history. Value case histories are written accounts that document the cost savings or added value that a customer receives from its use of a supplier's market offering. Sonoco Products Company's protective packaging division, for example, tracks the savings its customers gain from implementing an offering it calls *total packaging solutions*. Rather than selling customers the more commonly marketed corrugated-cardboard packaging materials, Sonoco offers packaging systems that, it maintains, are stronger, lighter, and smaller. The major elements in Sonoco's value model thus include savings from reduced product damage, packaging costs, shipping costs, and storage costs. When a customer has used these "solutions" for a year, Sonoco constructs a case study about the cost savings and reports the findings to the customer. Sonoco maintains a file of these case studies, which its salespeople draw on when making proposals to other prospects. The studies persuasively convey the cost savings that the prospects themselves would likely realize.

Value assessment can also become a service that suppliers offer as part of a consultative selling approach. For example, a supplier can develop a spreadsheet software application that salespeople can use on-site with a laptop computer to evaluate the potential value of the offering to a particular customer. (For an illustration of how such a tool can be used, see the insert "How BT Products Uses Value Models as Sales Tools.")

Putting an Understanding of Value to Use

Suppliers can use their understanding of value to strengthen performance and create competitive advantage in several ways. For example, a supplier can use its knowledge to tailor supplementary services, programs, and systems in its current market offerings and to guide the development of new offerings. Integrating everything it has learned about value into its marketing efforts, it can also gain new customers.

Finally, it can better sustain customer relationships by documenting its delivery of superior value over time and by discovering new ways to update and reinvigorate those relationships.

Managing Market Offerings. In the article "Capturing the Value of Supplementary Services" (HBR January–February 1995), we argued that suppliers can capitalize on the inevitable variation in customers' requirements within market segments and increase their profitability by providing flexible market offerings. Doing so entails constructing what we call *naked solutions with options*. Naked solutions consist of just those product and service elements that all customers within a market segment value. We said that suppliers should strive to sell naked solutions at the lowest possible price that will yield a profit. Then suppliers should "wrap" those solutions with options-specific product and service elements that some, but not all, customers value.

A company's ability to manage flexible market offerings successfully rests on its understanding of the value each component of an offering creates as well as its associated cost. An understanding of how customers value those components—and what they cost the supplier to deliver—enables suppliers to identify and eliminate what we call *value drains*. These are services that cost the supplier more to provide than they are worth to the customers receiving them and that have no strategic significance.

Consider this: A producer of chemicals used in extracting oil from wells routinely performed a field analytic monitoring service for its customers to determine when, and in what amounts, they should apply its products. A salesperson visiting one of the company's small, less sophisticated customers noticed the reports stacked in a corner of the production shed. When asked about their usefulness, the customer replied that he was not using the information at all and instead just had the producer's truck driver pump a few gallons of the chemicals into each well whenever the truck came by. Learning this, the supplier offered

How BT Products Uses Value Models as Sales Tools

BT Products, a subsidiary of BT Industries Group, which is based in Sweden, is a worldwide producer of warehouse trucks for inventory handling. In 1993, the company created BT Compass, a logistics-planning software system, to help its customers improve their profitability by lowering the total cost of the inventory-handling process. The BT Compass system provides the following:

- a full analysis of the customer's operational requirements,
- a fast comparison of different pallet handling and order-picking solutions,
- optimum warehouse layout,
- accurate calculations of handling capacities,
- complete analysis of projected life-cycle costs.

The BT Compass system has been developed to work in seven languages, and all inputs and outputs can be translated into any language with a single keystroke. It displays different layout options by using high-quality color graphics, and all plans can be printed quickly using a printer or plotter.

BT Products uses the Compass system when a customer is contemplating a change in materials handling or is adding a new facil-

ity. The system helps the customer figure out, for example, the optimal aisle width that will accommodate the dimensions of a counterbalance lift truck, and it calculates the layout and equipment requirements to meet peak-hour needs.

BT Products measures the actual performance of its competitors' equipment, often buying the equipment to test it. Thus it knows the critical performance measures that customers use to judge lift trucks. BT Products also gathers information about the customers' individual systems. Customers sometimes provide functional specifications and ask the lift truck supplier to tell them the number and types of trucks required. If the performance is not met, the selected supplier has to provide additional trucks at no cost to the customer.

The data the customer must enter into Compass requires some competence on their part. To help the customer gather the required data, BT Products has developed a one-page worksheet that pulls together the necessary input data. (See the worksheet "The Information BT Products Gathers to Build Customer Value Models.") Some customers know the required data

very well; others do not. BT Products' most senior salespeople work with the customers in doing the analysis. They even provide hands-on data collection as needed at the customer's facility.

One of the advantages of using Compass is that it combines warehouse planning with an analysis of the kind and number of trucks needed to optimize warehouse performance. Recently, Birkenstock, the German shoe manufacturer, decided to build a new warehouse in Asbach, Germany. An in-house consultant responsible for the procurement process for this new warehouse had proposed a layout that required three lift trucks to handle the pallet movements. By using Compass, BT Products was able to demonstrate how an alternative layout in conjunction with its high-performance trucks required only two trucks—one less truck and one less operator. According to BT Products' managers, without Compass, they would not have been able to find this new solution and provide the detailed performance results for their trucks. In addition, they believed that they would not have been able to convince Birkenstock management that their solution was correct.

to discontinue the service and, in exchange, give the customer a 7% per-gallon price reduction. The customer readily agreed, and the profitability of that account jumped from minus 6% to 32%!

Rather than finding value drains by chance, as in the example, suppliers can set out to detect them by using field value assessment in conjunction with activity-based-costing analysis. Identifying and eliminating value drains results in better allocation of resources and improved profitability. Virtually always, the results more than pay for the cost of doing the

field-value-assessment research.

Guiding the Development of New or Improved Products and Services.

Most market research that is conducted to provide an understanding of a customer's requirements and preferences does not address the question: "If we do X, what is it worth to that customer?" Knowing that an improvement in some functionality is important does not tell a supplier if the customer is willing to pay for it. Value models provide that information.

In cases where the supplier's new offering will introduce technology

into the market, for example, a value model can demonstrate to prospective customers how the technology can provide greater value for them. That's an especially critical point when the new technology makes the market offering itself higher priced than the alternative choices, which may use more established and familiar technologies. At the same time, a model allows the supplier to see how the value of its new technology varies across applications, customer capabilities, and usage situations.

When a supplier is developing a

The Information BT Products Gathers to Build Customer Value Models

This chart represents the BT Compass value-assessment worksheet. It shows the parameters that affect the costs and benefits of the supplier's offering. Clearly, many of the elements listed won't be relevant in other industries, but they are central to assessing value for this company.

BT Compass data collection

Customers: _____ Date: _____
 Comments: _____

Machinery: Alternative 1 _____ Alternative 2 _____ Alternative 3 _____
 Type of truck/crane: _____
 Wire guidance _____ Radio shuttle _____ Select conveyer _____

Load dimension

Unit no.	Number of different unit widths			Height	Number of different unit heights for selected unit width	
	Width	Depth	No./bay		No. of units	Weight in kg.
1.						
2.						
3.						
4.						

Customize

Building height	Building length	Number of aisles	Sprinkler	Aisle width if not standard	Pallet per channel	Upright width	Vertical pitch

Rear transfer aisle for order picking _____ Type of high level picking truck _____
 Low order picking truck _____ Type of low level picking truck _____

Capacity:

Pallet handling		Order Picking	
Pallet movement/day		No. of orders/day	
Number of shifts/day		No. of orderlines/order	
Working time/shift		No. of items/orderline	
Double cycles in %		No. of orders/picking round	
Max. utilization in %		No. of shifts/day	
No. of cycles/transfer		Working time/shift in hours	
No. of cycles/channel change		Prep. time/pick. round in sec.	
Admin. time/cycle in sec		Prep. time/orderline in sec.	
P and D located outside store, in %		Picking time/item in sec.	
Dist. in meters to that position		Replenishment	
No. of 90 degree curves		Pos. time/orderline 1st level	
Battery capacity in Ah		Pos. time/orderline 2nd level	
Relocations in % (cranes)		% of picking 2nd level	
No. of relocations/cycle (cranes)		Picking from 2nd level	
		Effective working time in %	
		Picking height in mm	
		No. of picking aisles	
		Battery capacity in Ah	

Commercial overview

Depreciation time in years		Operational cost	
Building		Heating/m ³ and year	
Racking		Personnel incl. social/year	
Trucks			
Cranes			
Conveyors			
Others			
Interest in %			

handling	Pallet
Pallet movement/day	
Number of shifts/day	
Working time/shift	
Double cycles in %	
Max. utilization in %	
No. of cycles/transfer	
No. of cycles/channel change	
Admin. time/cycle in sec	
P and D located outside store, in %	
Dist. in meters to that position	
No. of 90 degree curves	
Battery capacity in Ah	
Relocations in % (cranes)	

new offering in response to customers' requests or demands, it can use value assessments to determine what improvements are worthwhile and which ones have the highest priority. For example, the supplier could ask managers in different functional areas of customer companies to evaluate potential improvements. One chemical pigment supplier asked managers in its customer's production and R&D areas to perform a conjoint analysis for potential changes in its offering. Specifically, the supplier wanted to know how the customer would value some near-

term-achievable changes in technical attributes, such as gloss or dispersibility. At the same time, the supplier asked the customer's general managers and purchasing managers to consider the potential value of changes in the products' commercial attributes, such as the supplier's delivery service and payment terms. Although the findings largely conformed to the supplier's management expectations, there was at least one important discovery: the relatively high value the customers placed on improved dispersibility. Subsequent field investigation confirmed that

the supplier's customers were indeed having many troubles with "flocking," the clumping that can sometimes occur as a dry pigment is dispersed into a liquid solution.

Gaining Customers. Knowledge of how their market offerings specifically deliver value to customers enables suppliers to craft persuasive value propositions. Consider the case of Greif Brothers Corporation, which produces fiber drums, plastic drums, and intermediate bulk containers for food products and chemicals manufacturers. Rather than competing on a price-per-container

Understanding Value: How W.W. Grainger and Its Customers Benefit

W.W. Grainger distributes maintenance, repair, and operating (MRO) supplies and related information to the commercial, industrial, contractor, and institutional markets in North America. Grainger's mission is to provide the lowest total-cost distribution for 173,000 MRO supply items, such as claw hammers, replacement motors, safety eyewear, and lubricants. In the early 1990s, Grainger's managers realized that to reach their ambitious goals for growth, the company would have to help its customers better understand the total cost of MRO supplies acquisition and management. At the same time, a growing number of Grainger's large customers were becoming concerned about the money they were spending—beyond the actual purchase prices—for MRO supplies. Recognizing an opportunity, Grainger's managers formed Grainger Consulting Services (GCS) to help customers understand the total cost of MRO supplies management.

GCS began by performing a benchmark study free of charge for 15 of Grainger's large customers. At each company, GCS detailed the steps involved in acquiring an MRO item and outlined the estimated costs associated with each step. Since the original studies, GCS has gained extensive experience and knowledge in building customer value models, which it calls *total cost models*. And as its reputation has grown, it has increasingly offered its consulting services on a for-fee basis to clients.

GCS's experience with Pharma Labs (a disguised name) provides a good illustration of how it builds and uses customer value models.

Pharma Labs is a rapidly growing pharmaceuticals manufacturer. At one of its largest plants—a facility with 380 employees—purchasing managers were questioning whether to outsource their MRO procurement and inventory management processes. During a routine sales call, the Grainger account manager learned of the managers' concerns and arranged a half-day meeting with the vice president of operations, the purchasing manager, and the maintenance manager at that facility.

During the meeting, two GCS managers toured the facility to gain an overview of its MRO-supplies-management processes. Also during this meeting, GCS consultants showed Pharma managers how GCS defines cost savings and outlined the sometimes hidden costs of MRO supplies management. The consultants

told the Pharma managers, for instance, that some companies do not account for MRO supplies inventory and associated carrying costs.

Following the meeting, GCS proposed that it perform what it calls a *baseline assessment*, which documents the total costs of MRO supplies management and then, following that assessment, offer Pharma managers some strategic recommendations about how they could improve their operations. GCS told Pharma Labs that the assessment and the strategy development would take 6 to 12 weeks to complete and would cost \$45,000. Pharma Labs management agreed to the proposal, hiring GCS in January 1997.

To begin, GCS put together a case team, which consisted of a consulting manager, a consultant, and a business analyst. Pharma Labs formed a steering committee and a project team. The steering committee comprised the relevant department heads, such as maintenance, purchasing, manufacturing, inventory management, management information systems, and finance, and was responsible for project oversight and strategy development. The project team was a smaller cross-functional group with representatives from each of the departments on the steering committee and was responsible for working with the GCS case team.

Generally, GCS looks for the elements of its customer value models in four primary areas: processes (from how the need for items is identified to payment of invoices), products (product price, usage factors, brand standardization and application), inventory (on-hand value and carrying costs), and suppliers (performance, consolidation and value-adding services provided). In each area, GCS defines value and cost-saving elements (such as freight and courier charges and the cost of overtime), specifies the measures for the elements (such as procurement cost per purchase order, number of suppliers, and inventory accuracy), collects the data and analyzes them, and specifies measures for monitoring performance. At Pharma Labs, the measures for monitoring performance included supply expenditures, number of suppliers, and transaction volume.

In a baseline assessment, GCS uses process mapping and activity-based costing to build customer value models, drawing on proprietary databases that the company has built from its findings in past engage-

ments. At Pharma Labs, GCS applied an activity-based-costing approach to identify procurement costs across all typical functional areas—purchasing, maintenance, receiving, and accounts payable. These identified costs were generally in line with costs tracked in the GCS databases.

In any analysis, GCS attempts to use the customer's electronic data whenever possible. The team usually attempts to get one year's worth of data. Early on, the case team makes a site visit to examine the customer's data and to assess how accurate and complete they are. In the case of Pharma Labs, GCS analyzed two years' worth of purchasing and accounts payable data, as well as six months of procurement card data. The data provided GCS and Pharma with insights about the potential for consolidating the number of products Pharma purchased regularly from various suppliers. It also suggested how Pharma might consolidate its purchases in return for lower prices and greater value-adding services from its remaining suppliers.

At Pharma Labs, as in most GCS engagements, the case team also had to do an invoice analysis—actually inspecting past invoices to gather usable data—to validate the electronic data and to provide additional line-item product detail when available. The level of detail that the customer has is usually not adequate. The customer's system may contain only aggregated purchase-order information, showing only how much was paid in total. Complicating the task further, invoices themselves often have incomplete item descriptions that make it difficult to determine exactly what was purchased.

The GCS team also found from its inventory analysis that Pharma Labs had no records of the amount of inventory on hand or its usage. Inventory levels were extremely high—the team later found that Pharma had more than \$1 million worth of slow-moving inventory—but no actual record of this inventory was maintained in a system to track and manage the items.

The GCS case team supplemented its analyses by interviewing the Pharma project team members. In these interviews, GCS shared its preliminary findings, tried to uncover anything that they might have overlooked, and learned what the Pharma managers themselves perceived to be potential areas of improvement. The interviews were, in fact, fruitful, alerting GCS and

Pharma managers to at least one significant finding in the procurement area. It turned out that Pharma lab technicians played an unusually large role in the procurement process, handling some routine purchasing, maintaining detailed, handwritten logs of all transactions, receiving the items into inventory, and managing that inventory. The GCS value model showed that Pharma Labs was spending 30% of its procurement costs—or the equivalent of nearly three full-time positions—on lab technicians who could be redeployed from this purchasing function to more value-adding activities in their intended function. Pharma Labs eventually signed a supply agreement with another company, which, in return, put one of its people on site to manage this procurement process.

After GCS completes a baseline assessment, it then tries to specify improvements that the customer can make in 6 to 12 months. It also works with the customer to formulate changes in the MRO-supplies-management strategy.

At Pharma, GCS identified at least \$327,000 in total cost savings on the \$6.1 million Pharma was spending yearly on MRO supplies, including the costs of acquiring and managing them. These projected cost savings came about through consolidation of suppliers and product-spending reductions (\$165,000), inventory reduction (\$72,000), and process improvements (\$90,000). For example, GCS recommended that Pharma Labs dramatically consolidate its MRO supplies purchases. Pharma Labs agreed and initiated a national account agreement with Grainger in June 1997. In return, Grainger provided Pharma Labs with an on-site Grainger representative to manage the purchase and inventory processes at the company. This allowed a Pharma Labs maintenance technician who had been spending 100% of his time purchasing MRO supplies to return to performing value-adding maintenance activities.

What were the ultimate results of Grainger's work with Pharma Labs? In December 1997, GCS and Pharma Labs jointly conducted an audit of achieved cost savings, which were found to be \$387,000 during the first six months. What's more, for the whole of 1997, W.W. Grainger sales to Pharma Labs increased sevenfold, from \$50,000 to \$350,000. Clearly, a better understanding of value created substantial benefits for each company.

basis, Greif markets complete packaging systems. That is, Greif stays involved with its customers throughout the life cycle of the containers—monitoring how the customer uses the container, following the container's path to the end user and retrieving it when it is empty, and disposing of it or reconditioning it. Greif's value proposition—total-cost-based packaging—promises that its systems can

Knowing that an improvement in some functionality is important does not tell a supplier if a customer is willing to pay for it.

significantly reduce a customer's total packaging costs.

How does Greif develop its propositions? First, a Greif strategic account manager, together with a representative from the customer, builds a value model to understand total costs. (Greif developed its current model based on information from 20 major customers.) Key elements include the costs associated with tracking and retrieving the drums, cleaning and maintaining them, testing and recertifying recycled drums, and all the associated paperwork.

Greif has found that customers—both existing and potential—can readily assign monetary values to some elements but that other elements are more difficult to pin down. For those elements that are harder to quantify, Greif takes its analysis to a deeper level. Consider the benefit of environmental stewardship. To get a handle on the value of that element, Greif determines what percentage of its customers' customers' locations (that is, the end users' locations) are in landfill-restricted areas, where the cost of disposing of the containers is higher than at other locations. Greif's service—which, as we said, includes retrieving the containers—not only eliminates this cost but also indemnifies its customers against improper disposal by the end users, protecting them from fines levied by the Environmental Protec-

tion Agency. While these analyses do not account for all the reasons that environmental stewardship would be worth something to a customer, such as the value added to the customer's reputation, they nonetheless make environmental stewardship worth something to the customer in monetary terms.

Using the value model to construct several viable total-cost-based packaging solutions, Greif's strategic account manager and a team of Greif experts from logistics, handling systems, and computer services then give a com-

prehensive presentation to the prospective customer's senior managers. During the presentation, they discuss the merits and prices of each solution.

Sustaining Customer Relationships. At the core of all successful working relationships are two essential characteristics: trust and commitment. To demonstrate their trustworthiness and commitment to customers, progressive suppliers periodically provide evidence to customers of their accomplishments. Sales managers at Greif, for example, give customers quarterly reviews that document actual cost savings. Applied Industrial Technologies (AIT), a major distributor of specialty replacement bearings, power transmission components, and fluid power products in the United States and Canada, provides another good example.

AIT primarily serves maintenance, repair, and operating (MRO) supplies markets within the primary metals, mining, pulp and paper, utilities, chemical processing, textiles, food processing, and agricultural industries. It operates more than 337 branch locations across the United States. In 1990, the company began to market a value proposition promising to help its customers improve productivity rather than simply selling them parts at a low price. Through value assessment, the company began to work with its cus-

tomers to help them save money in areas such as maintenance, inventory, and energy consumption—any measurable area other than purchasing. The results were collected in what AIT calls *documented value-added savings*, which is now the cornerstone of the company's partnering efforts.

AIT trains all of its employees—from branch managers to field associates to delivery drivers—to look for ways to improve customers' operations, and the company rewards them for their successes. And to support their efforts, the company has developed a customized software program that calculates cost savings. Sales representatives can run the program on laptops while visiting customers. Working with customers' managers, representatives input data for potential value-adding and cost-reduction variables—variables that AIT and the customer have previously agreed on. Then, either on a quarterly or a semiannual basis, AIT presents each customer with a report that documents the savings, allowing customers to assess firsthand the value AIT has delivered.

In order to establish credibility for its reports, AIT asks customers to sign and return a copy. The company keeps track of the performance of each cost-savings initiative and aggregates the totals. AIT calculates that last year it provided more than \$100 million in cost savings to its customers.

Delivering Superior Value and Getting an Equitable Return

Understanding value in business markets and doing business based on value delivered gives suppliers the means to get an equitable return for their efforts. The essence of customer value management is to deliver superior value and get an equitable return for it, both of which depend on value assessment. W.W. Grainger, the MRO supplies distributor, is an excellent example of a company that has realized the benefits of measuring and monitoring value for its customers. The company has even established a consulting arm, Grainger Consulting Services,

specifically to help customers understand the total cost of MRO supplies management. (See the insert "Understanding Value: How W.W. Grainger and Its Customers Benefit.")

Perhaps equally compelling, though, is an observation made by a

senior manager at one company that does business based on value: "Selling only on price—where's the fun in that?" This manager recognized that when there is market pressure on price, his business unit needs to respond by demonstrating that it has something different to offer—some-

thing that will provide superior value. Assessing and truly understanding value in business markets is the beginning of the path to profitable fun. 

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