Checkmate News

Winning Approaches for Cost and Resource Productivity

Volume 1, Edition 2 | **www.PaladinAssociatesInc.com**

Cost Modeling Provides Key Benefits

Robert J. Patton, Sourcing Associate, **Paladin Associates, Inc.**

Amidst the recent financial crises, global rescue plans, and looming fears of recession, crude oil prices have been dropping at unprecedented rates. This has come on the heels of prolonged soaring crude oil prices, volatility across a broad range of basic commodity prices, currency uncertainties, and an upswing in the U.S. Producer Price Index. Will the PPI soon follow the downward spiral? If so when and how far? No one can know for sure where all this is headed, when it will bottom out, or when and to what extent it will turnaround. But one thing is certain -- this economic turbulence underscores the need for rigorous cost modeling and supplier cost analysis.

Not since the mid-70s has the global economy been subject to such a flood of media coverage. Most consumers probably have some awareness of what's been happening, but few have a clue to exactly how and why, for example, the price of crude oil fluctuates – thereby affecting the price they pay for gasoline, diesel or home heating. But this same lack of cause and effect knowledge would be unthinkable for procurement professionals responsible for sourcing raw materials, energy, and manufactured feedstocks and derivatives.

Effective cost modeling is an essential element of cost control and cost containment. It also enables buyers to keep management informed via accurate cost reporting and timely forecasts of estimated future costs, and input to budgeting and pricing strategies. This is critical to developing winning sourcing strategies for current spend and to determining when and where to seek alternative supply options and materials. It is equally important to the planning and development stages of new product entries. The following analysis may help improve overall performance in these all important areas.

Cost Modeling Process

In most cases cost modeling consists of two related processes.

1. The most basic is the process of calculating a "total delivered cost (TDC)" for a given item.
2. The second process involves doing a "cost analysis" for a much deeper dive

into a supplier's cost structure.

Normally the buyer should have easy access to all the information needed for the first process, but must often search and dig for the second. The following schema outlines an overall process, key elements and resources required for robust cost modeling.

	1. TDC	2. Cost Analysis
Key Elements:	- Accurate calculation and validation - Timely reporting and dissemination - Internal centers of knowledge and forecasting	- Ongoing data and info monitoring and updating - Leverage cross functional expertise to "reverse engineer" cost structures - Supply chain knowledge
Data/Info Reqts:	- Supplier price - Special charges, fees, etc - Inventory and carrying costs	- Supplier resources - Internal expertise - Public and private market data sources

TDC Calculation

The first process of building total delivered cost, starts with the supplier's quoted price, including FOB price, runtime or standby charges, change parts, transportation, storage and any charges for buyer's account. Also add other fees or charges required for delivery, inventory and ultimate use of the material. Use of imported materials carries a host of additional elements. Pricing may be volume sensitive or subject to periodic rebates (or penalties) based on actual rate of usage. Supplier pricing may also be subject to adjustment (escalation or de-escalation) based on fluctuations in published indices, e.g. labor statistics, commodity exchanges or other published pricing. (Formulae for these adjustments can provide clues for a more in-depth supplier cost analysis.) All these components are factored into the cost model, and may even be legally subject to auditing and other controls -- consequently buyers typically have no choice but to stay on top of this area. But how efficient is your current system? Do buyers spend an inordinate amount of time in this area? Are there accuracy issues, regular disputes between buyers and cost accounting or others monitoring the cost and payment end of the supply chain? Is your current ERP solution a help or hindrance in this area? Would a Spend Analysis solution better enable this effort? Your answer to these questions may suggest areas for improvement in this most basic of cost modeling processes. The less time buyers spend on TDC calculations, the more productive they can be in pursuing Cost Analysis.

Supplier Cost Analysis

The second process, supplier cost analysis, is best described as "peeling the onion". It is important to peel only what is needed, and how deep to go will vary by item and supplier. The emphasis has shifted greatly over the past decade. We used to "scrounge" for data, intelligence and info sources. Now, in the digital age, we have a "fire hose" of data and the challenge is in data mining and other approaches to get at

useful info, i.e. providing the buyer with essential info at the correct time and in the best format, so that it can be used productively…easy to articulate but more difficult to accomplish. Supplier cost analysis is a combination of art and science. Regardless of the e-systems involved, it requires individual buyer judgment. Currently there is not a single e-solution or "killer app" that does all this for you. Here are some recommendations with which to approach the cost analysis task:

1. ***Start with your supplier.*** The best place to begin analyzing your supplier's costs is with the supplier itself. Understanding the supplier's process and cost drivers should be a constant topic of conversation in supplier meetings. Visits to the supplier's facilities offer an excellent opportunity to acquire first-hand knowledge. While suppliers are often times very open, when they are not, persistent questioning and observation can yield a surprising amount of useful information. Managers and sales representatives love to talk about their business; showing an interest and asking astute questions will often reveal critical information. By asking follow-on questions you can frequently piece together meaningful information. Be a good listener and a diligent observer with supplier personnel.

2. ***Document findings.*** Diligently record and document information and observations for ongoing analysis, comparison and sharing across the organization. The adoption of standard formats for recording and reporting this info within an enterprise is useful in making the info available to all in the organization who have a need to know. The bigger the organization, the more critical this shared accessibility is. Many times bits and pieces of info shared by different parts of a supplier organization can be parsed together to fill an info gap. How does your organization stack up in terms of getting individuals to share this info in a way that leverages your overall "institutional" knowledge of suppliers?

3. ***Understand the macro impact of cost-drivers.*** Another important early step in supplier cost analysis is to have a good macro handle on the key factors that drive your overall spending across current and projected spend pools. Ideally, an organization should be able to gauge the annual spend impact for every $x/barrel increase/decrease in oil or ethylene or propylene or solvents or energy or labor costs or whatever is key to your spending. In many cases there will be a mix. In addition to reducing the element of surprise when prices climb, this becomes a powerful management tool for what-if and worst-case/best-case simulations for future planning and pricing decisions. Getting a handle on the macros provides guidance for what key materials are worth attention, and where you need robust tracking and historical data systems. How good is your current approach in this area? Are you able to easily explain supplier price increases for crude oil or other commodities and derivatives?

4. ***Assign cost-driver experts.*** Having made these determinations it should be easy to see what key info should be collected and managed. For example, take a basic chemical building block like ethylene, which might be involved in numerous spend pools and supply chains. It would make little sense to have

multiple buyers manage ethylene knowledge and info; this would be inefficient and risk inconsistency across the organization. How does your organization structure this? Do you have recognized centers of competence for each of your key cost-drivers? Is this info managed and updated and made easily accessible by your "experts" to all who need it?

5. ***When possible, use internal technical resources to validate supplier info, other external data and problem-solve unknowns and info gaps.*** Look to your product and formulation designers, people responsible for writing specs, monitoring product quality, production, and other technical resources that may have the expertise to provide insight into your suppliers' internal processes, economics, etc. Share their information and assumptions with your technical people and you might find synergy. Working collaboratively you may be able to determine how much a given material "should cost" or how much a given commodity price could affect your supplier's cost structure. Your engineers may be able to determine whether a supplier's process is energy-sensitive, labor intensive, etc, etc. How well are you doing in terms of sharing information about suppliers across business units? Across functions? Across regions?

6. ***Identify external data sources and establish update mechanisms.*** Another consideration is overall selection and use of external information sources. There is probably no "one size fits all" solution; you will need to rely on multiple sources depending on the spend pool and material you are analyzing. As with internally-generated info, the key lies in getting information to each buyer when they need it and in the right format. Getting people to adopt new e-solutions is never easy, but most prefer "push" versus "pull" for daily or even weekly news blurbs, updates, etc. Companies can address these issues with external help from specialists or consultants with experience in these areas. (For example, **Paladin Associates** can help companies model their costs, analyze spending habits, identify and recommend process efficiencies, and actually implement significant cost saving programs in Sourcing and other functional areas.)

Conclusion

In today's economic climate, it is imperative sourcing professionals fully understand the cost components and cost-drivers of the goods and services they source. This requires a solid understanding of internal costs as well as suppliers' costs, combined with a deep knowledge of the markets affecting various cost components. A well-defined and documented process with clear responsibilities, enabled by technology, will make this effort more efficient and effective. The less time buyers spend gathering and documenting information, the more productive they can be in executing the process of cost management.

Robert J. Patton is a Sourcing Associate at **Paladin Associates**.
RJPatton@PaladinAssociatesInc.com
www.PaladinAssociatesInc.com

Do you believe that your organization has a sourcing savings opportunity? If so, don't hesitate to contact us. In less than a few weeks, Paladin can provide a comprehensive assessment of the types of telecom savings opportunities that your company might be missing out on. Since we are willing to work on either a contingency or gain-share basis, there is no cost or risk to your organization. Contact us today:

Cameron C. Shaw, Vice President
Paladin Associates
Results Driven Consulting
Office: (770) 986-6174; Cell: (404) 307-7416
ccshaw@paladinassociatesinc.com

Paladin Associates
Results Driven Consulting

Look for the next issue of Checkmate in your in-box this fall.
We promise the same, hard-hitting pragmatic advice in each and every issue to come.