While the concept of total cost of ownership (TCO) has been around for more than 30 years, many companies are still using part price as the key component for negotiations with their suppliers.

TCO is clearly a more profitable approach, yet in industry after industry, supply management professionals continue to reduce part cost through intensive negotiations with suppliers. So, if TCO is such a good approach, why doesn't everyone adopt it to reduce supply chain costs?

In my experience, there are three major impediments to using TCO:

1. **Purchasing departments often do not control the all cost elements of their materials/services purchases.**

2. **Supplier capabilities are not fully used.**

3. **Current product cost accounting systems do not reflect TCO approaches.**

TCO, as its name suggests, is comprised of all the costs associated with the procurement of parts and services. Those costs include materials, labor, overhead and profit, as well as freight and logistics, quality, warranty and service, inventory holding costs, customs and duties, lead and cycle time, and engineering changes, among others. TCO embodies a longer time frame, usually at least 18 months and often the entire life cycle of the product.

For example, several of the more progressive companies I'm familiar with require a minimum 25 percent TCO reduction or they won't take production offshore. Other companies often just look for a part price reduction before they jump into the deep water of offshore supply.

Many companies do not follow a TCO model in their purchasing because often, the purchasing department does not own all of the components of TCO. For instance, one logistics department selects transportation suppliers, coordinates customs and duties, and tracks all paperwork and other regulatory requirements. That department reports to accounting. In many cases, delays in the accounting department result in missed due dates, expedited freight and other increased costs.

Meanwhile, in a large, transportation-related company, quality, freight, engineering and purchasing all report to different vice presidents and have different objectives. Purchasing doesn't even consider the costs of those other elements in its sourcing decisions. In one case, they ship a metal part all the way across the United States because it is cheaper to buy the part on the West Coast than on the East Coast, even though the freight — for which they are not responsible — more than erases the savings.

Another reason that TCO is underused is that purchasing groups don't take advantage of
their suppliers’ services. Many lean companies successfully use pull systems, such as Kanban and supplier-managed inventory (SMI), to reduce inventory, cut transaction costs, decrease stock-outs and increase inventory accuracy. SMI programs can significantly reduce costs. In some SMI programs, supplier payments occur once or twice per month, lessening the burden on accounting. Some supply management departments feel uncomfortable using SMI because the part price might be slightly higher to help cover the supplier’s cost of managing the inventory, or they actually don’t trust the supplier. By taking a TCO approach, companies would normally see cost reduction through lower stock-outs, lower inventory and almost zero in-house handling of parts.

Many companies are still tied to outdated standard costing systems that track only materials, labor and overhead in the bill of materials, or BOM. Standard costing systems offer limited mechanisms to apply freight, handling, cost of inventory, quality and other TCO elements to the part. Because of that, those costs get lost in the overhead details and do not reflect on the parts themselves. Once again, if the purchasing department is held accountable only for part costs, the rest of the TCO elements will be ignored at best and costly at worst.

To better negotiate and control total cost of parts, companies should do three things:

1. First, they must develop TCO models that include cost-driver identification and ownership for various parts. Cost drivers go beyond the basic cost elements to include things such as yield, transportation, warranty and service, and lot sizes. Understanding those cost drivers and communicating them to the entire organization brings into focus total cost reduction and overall profitability. Wherever possible, ownership of the transactional elements of cost should be in the supply chain group. Additionally, the supply chain group should be closely connected with design engineering and customer service.

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2. Next, companies should integrate supplier capabilities into the supply chain wherever possible. Engage key suppliers not only in product design, but post-release (for example, warranty service) cost reduction efforts, too. Suppliers should participate in automatic-replenishment systems such as Kanban materials flow systems and SMI systems to reduce inventory and improve cycle/lead times.

3. Finally, companies should take a holistic approach to product costing, and include TCO in the cost models. Review or replace standard cost systems with more advanced lean accounting structures that provide a stronger costing environment to enable broader cost reduction efforts.

With successful implementation of TCO, companies can significantly improve profit margins and cash flow. With stronger accountability, better cost modeling and trusting relationships with suppliers, they can move into the next decade ready to compete in a global marketplace.

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