

LOW-BIDDING IS NO WAY TO LOWER COST

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Going for the low-bidder is something we management consultants have been trying to discourage for years, but now it has seen a resurgence just because it is easy to do on the internet. This comes at a time when many purchasing functions are under heavy pressure to use the net and get into e-commerce.¹

Bidding for the cheapest parts is not only an ineffective way to achieve *real* cost reduction, but it can substantially raise less-obvious costs and compromise other important goals like quality and delivery, which are especially important for Lean Production, Build-to-Order, and Mass Customization. Quality usually takes a back seat when buying decisions are focused on purchase cost, especially in bidding situations. Some say that quality standards can be set for all bidders, but it is a dangerously naive assumption to believe that quality can be assured simply by setting a metric. Further, focusing cost reduction efforts on part bidding distracts attention from *real* cost reduction opportunities, summarized on the [Cost Reduction Strategy](#) on the home page.

Dick Hunter, Vice President of Fulfillment and Supply Chain Management for Dell Computer says that on-line auctions are no silver bullet:

Auctions and exchanges have fueled the thinking that price is everything. But there is more to procurement of materials than just price. Quality, service, responsiveness, and the willingness to improve common processes also are very critical to driving down the total cost of materials.²

COUNTERPRODUCTIVE A COST REDUCTION

In old-paradigm companies, cost reduction efforts are focused primarily on parts and materials (hereafter called parts) because that is all that most cost systems are able to quantify, besides labor. Many manufacturers, especially the U.S. automobile companies, beat up their part suppliers for repeated cost reductions. And now B2B internet web-sites are able to conduct competitive bidding auctions to offer the lowest cost parts.

But before manufacturers fall for a magic elixir, they should consider how part costs really would be lowered under such pressure. One assumption is that either purchasing agents have naively offered to pay too much or that cavalier part makers have been gouging their customers. While this may have been true in sleepy industries of the past, it is rarely true in today's dynamic marketplaces.

Another assumption is that supplier inefficiencies can be somehow be corrected after a supplier A wins@ a contract at a lower-than-usual price. However, soon after a supplier wins a bid, it is expected to deliver the goods, and there will not be time to implement any meaningful [cost reduction program](#), like that presented on this site. Thus, without a real means to lower costs, the supplier will either have to cut its margins (which will be resisted from the corner office all the way to Wall Street), cut corners (as discussed below), or do the same to thing to *its* suppliers, who may have the same difficulty achieving real cost reductions. Further, if suppliers are either making disappointing profits or struggling to reduce costs, they will not be very receptive or cooperative with Lean/BTO assemblers= needs for on-demand part delivery, which compromises their responsiveness and real cost reduction efforts.

In some cases, suppliers will temporarily lose money to A buy into the business@ with the expectation of raising costs later, once they are A in.@ And there are even suppliers out there whose strategy is to bid jobs at zero profit and plan to make all their money on the expected change orders.

In other cases, low-bidders A win@ because they don= t understand the problem and then are ultimately unable to deliver at all. In other cases, winning bidders are A vapor@ companies, whose goal is keep bidding down until they win, and then patch together a A virtual@ network of alliances to somehow fulfill the order. This phenomenon came out at an in-house seminar, when the discussion topic was if anyone had noticed any problems with on-line competitive bidding. Within seconds, the purchasing manager was jumping up and down waving both hands in the air. They discovered that one bidding competitor was working out of an apartment and its strategy was to win the auction and then figure out later how to deliver the goods! He also said that a corporate dictate to do part bidding was alienating their valued suppliers with whom they had good relationships.

PRESSURING SUPPLIERS FOR LOWER COST

Pressuring suppliers for drastic part cost reduction is what J. Ignacio Lopez de Arriortua tried at GM, which not only failed to generate real, lasting cost savings, but also alienated its supplier base and drove the best suppliers to its competitors. The suppliers that remained put their best people on Ford and Chrysler projects and withheld their newest developments from GM, since Lopez was using proprietary supplier information to press all suppliers for lower prices. Further, the so-called A savings@ in purchasing cost caused severe cost to be incurred elsewhere. An ill-fitting ash tray from a new low-bidder caused a six-week shutdown in one Buick plant! In another incident, managers had to beg for help from a supplier Lopez rejected because of a 5% A savings@ from the low-bidder whose parts failed quality tests 50% of the time.³

When the once high-flying Rubbermaid first encountered cost pressures from the now-powerful lean retailers, its first response as a leading company was to make sure customers understood the necessity of price *increases!* When they realized that they really had to reduce prices, they tried what didn't work for Lopez and got the same alienation of the supply base, according to the largest research project ever devoted to corporate failures, *Why Smart Executives Fail, and What You Can Learn from Their Mistakes:*

A With little talent in cutting costs in-house, Rubbermaid looked to shift responsibility elsewhere. Suppliers were prodded to knock down their own prices, alienating some of the best, low-cost vendors in the process.⁴

Bidding creates a standoffish relationship between buyers and sellers that inhibits cooperative cost reduction efforts, which are the key to *real* cost reduction. An extensive study that analyzed deficiencies in the American automobile industry concluded this about the effects of bidding on supplier relations:

A A key feature of market-based bidding is that suppliers share only a single piece of information with the assembler: the bid price per part. Otherwise, suppliers jealously guard information about their operations, even when they are divisions of the assembly company. By holding back information on how they plan to make the part and on their internal efficiency, they believe they are maximizing their ability to hide profits from the assembler.⁵

THE VALUE OF RELATIONSHIPS FOR COST REDUCTION

Another common assumption is that if suppliers know they will have to bid, they will implement effective long-term cost reduction efforts. However, the most successful real progress in cost reduction in supply chain management has come from long-term relationships where manufacturers work together with suppliers.^{6,7}

The book that launched the lean production movement in the U.S., *The Machine That Changed the World*, notes that in lean production companies, suppliers are not selected on the basis of bids, but rather on the basis of past relationships and a proven record of performance.⁸ Honda's criteria for selecting suppliers is the *attitudes* of their management.⁹ As a philosophy-driven company, Honda feels it is easier to *teach* product and process knowledge than to find a technically-capable supplier with the right attitudes, motivation, responsiveness, and overall competence.¹⁰

Much of the real cost reduction opportunities are not just at the assembler or at the supplier, but rather *in their relationship*. In a thorough study of Japanese lean manufacturers, *When Lean Enterprises Collide*, Robin Cooper states that it is no longer sufficient to be the most efficient

firm; it is necessary to be part of the most efficient supplier chain. @ The key to accomplishing this is inter-company cooperation, summarized by Cooper as follows:

A The blurring of organizational boundaries becomes critical as competition intensifies because it not only reduces the time it takes the entire supplier chain to bring out new products with increased functionality but also allows quality to be improved while reducing cost. @

Cooper recommends partner companies A create relationships that share organizational resources, including information that helps improve the efficiency of the interfirm activities. @ ¹¹

Such inter-company cooperation offers significant cost reduction opportunities, especially if suppliers can build parts on-demand for build-to-order assemblers. Then *both* avoid all the cost and risk of parts inventory in addition to minimizing many categories of overhead for procurement, material overhead, expediting, warehousing, internal distribution, and so forth.

However, switching suppliers every time a competitor drops its price is incompatible with this strategy and can jeopardize ongoing relationships. A Fortune magazine analysis of dot-com failures summarized the failure of an on-line bidding site:

A For the bulk of spending, corporations have long been moving in precisely in the opposite direction, establishing deep relationships with a few favored suppliers in a > total cost= approach. Under this approach, price is but one of a host of criteria, which include quality, cycle time, service, and geography. @ ¹²

The same article also revealed some realities about the purchasing process that question how welcome bidding would be for typical buyers:

A In retrospect, say analysts, most B2B efforts betrayed pronounced cluelessness about how industrial buying actually works. Start with the supposition that purchasing managers would be thrilled to take bids online from dozens if not hundreds of suppliers each vying to be the lowest bidder. @

Another article that proclaimed B2B auction sites as A yesterday= s darlings, @ said that:

A Many companies just weren= t willing to dump the networks of suppliers they had built up over the years and do all their buying through a new, unfamiliar medium. @ ¹³

CHEAP PARTS B SAVE NOW; PAY LATER

Actually, this phrase should be, more precisely: *save a little now, pay a lot later*. Many times trying to save money on purchase cost has the unintended effect of driving up other costs many times the assumed savings, like the old English adage: *penny wise, pound foolish*, or the more colloquial *A you get what you pay for*.@

Cheap parts are usually just that *B cheap parts* that usually earn the stereotypical image of poor quality, which will add significant cost in the plant and cost even more if bad products get out, not to mention hazards to life and limb and loss of corporate reputations. A Wall Street Journal article published in 2001 had the headline: *A Ford Says Last Years Quality Snafus Took Big Toll B Over \$1 Billion in Profit*.@¹⁴

Even though quality disasters may look like infrequent anomalies, these costs must be included in the company's cost of quality metric, not just considered a one time *A charge*.@ Programs that aim to improve quality should be justified on their ability to prevent *all* quality costs, from an accumulation of many to *A the big one*.@

Ford's enormous problem with tires is not surprising coming from an industry historically obsessed with bidding on part cost and later enthralled with on-line bidding. An Industry Week article described the procurement process for tires at Ford. Although the millions of recalled Firestone tires may have been made before these on-line auctions, the low-bidder paradigm has been prevalent in Detroit since before the time of Lopez. Here is a description of the tire bidding process in early 2000:

A . . . five tire manufacturers participated in an auction earlier this year in which an initial bid was set by Ford and the tire suppliers then reverse bid downward to capture the business. > Twelve hours later they were still bidding,= says Brian Buersmeyer, Ford's e-business planning manager. > The suppliers kept lowering the cost. The market tension that created was dramatically different than the traditional buying processes.= @¹⁵

In the 1990 J.D. Power rating of automobile reliability, Mercedes-Benz received the top rating. But by 2003, Mercedes' rank slipped to 26 out of 37 cars ranked.¹⁶ One of the reasons for the drop in quality was cited by European analysts:

A Executives of what then was Daimler-Benz grew worried about escalating production costs in the early 90's. Executives then made a policy decision to start trimming costs by notching down specifications for many components.@¹⁷

REDUCE TOTAL COST INSTEAD OF FOCUSING ON CHEAP PARTS

In addition to the cost ineffectiveness of part bidding and its detrimental effects on relationships, there is the compelling argument that *other* cost categories provide much greater opportunities

for real cost reduction, as is emphasized throughout this site. This site's [Cost Reduction Strategy](#) presents many ways to minimize *total* cost and easy ways to [quantify total cost](#).

One of the cover stories of an Industry Week issue on B2B exchanges pointed out the disappointments of auction-based exchanges and how they distracted focus away from programs that promise real promise:

A Meanwhile, executives looking for big-time cost reductions could be in for major disappointments. Perhaps worse, the infatuation with auction-based first-generation exchanges threatens to sidetrack supply-chain management initiatives that offer the greatest promise for long-term results.¹⁸

There are enormous opportunities to reduce total cost throughout the supply chain, without any negative consequences, by designing for manufacturability, specifying off-the-shelf parts, eliminating the costs of setup, inventory, and obsolescence and substantially reduce the costs of quality, distribution, and material overhead.

The Value of High Quality Parts

Receiving high quality parts is especially important to lean and build-to-order operations because:

- (1) Dock-to-line deliveries count on A quality assured at the source[@] so that incoming inspections are not necessary and parts can go straight to all the points of use. This not only saves on the cost of incoming inspections, but also enables [spontaneous resupply techniques](#).
- (2) One-piece-flow operations are more sensitive to failed parts A looping[@] back and disrupting the flow.
- (3) Testing large batches of identical parts is not compatible with flexible operations.
- (4) Having part quality assured at the source plus the continuous quality feedback of one-piece flow will enable lean plants to assure quality by process controls rather than expensive and time-consuming testing B or risky low-bidding.
- (5) Raising the quality of *parts* improves *product* quality exponentially.¹⁹

Of course, there are suppliers that practice *kaizen* continuous improvement and *can* provide both high quality products at a low price. But because they value cooperation and have a A big picture[@] orientation, these companies would naturally align with customers who value long-term relationships instead of participating in the bidding process.

Another related trend is becoming apparent: The best suppliers are shunning B2B auctions. Philip L. Carter, professor of purchasing at Arizona State University, Temple, and executive director of the Center for Advanced Purchasing Studies (CAPS) concludes that:

A Manufacturers that are tempted to source key parts and materials through a trading exchange may find it difficult to connect with the most innovative, quality conscious vendors, since many likely will boycott the auction bidding process, viewing it > as a margin-squeezing play,= @ ²⁰

THE VALUE OF ON-DEMAND PART DELIVERY

For manufacturers to build products *spontaneously*, suppliers must be able to deliver parts on-demand. Since the best Lean/BTO manufacturers will be building products without forecasts or inventory, their suppliers will also have to build parts without forecasts or inventory B in other words, suppliers will also have to practice build-to-order techniques. Relationships will not evolve if suppliers are selected based on purchase cost and suppliers are switched often. A recent business week article summarized the views of Michael R. Katzorke, senior VP for supply-chain management at Cessna Aircraft Company:

A For companies pursuing lean-manufacturing initiatives B including the use of pull signals to trigger supplier shipments B it is critical to integrate suppliers into the manufacturing process. > But how am I going to do that if one guy has the part today and somebody else will be making the part tomorrow?=@ ²¹

Ironically, suppliers who practice this site= s [cost reduction strategy](#) principles will actually provide *lower* cost not only for purchases but also for several categories of material overhead. And since these suppliers will probably have good relationships with customers who appreciate them, they will start losing interest in A old paradigm@ customers that want them to bid on purchase cost.

Another problem with procuring parts through competitive bidding is that usually the bid is for a *batch* of parts, which will probably be built in a batch and then drawn from inventory with all the problems of forecast inaccuracies, inventory costs, and obsolescence risks.

Low bidders will probably prove to be disappointing with respect to supply chain coordination, adjusting for demand variations, quality issue resolution, customization, bar-coding, radio frequency ID tags, labeling, shipping bin reuse, and help with customer service at the user level. All these services may be inadequate if either the low bid is forcing suppliers to eat into their margins or the suppliers are too stretched trying to satisfy the bid commitment.

EFFECT OF PART BIDDING ON PRODUCT DEVELOPMENT

A key theme of [Concurrent Engineering](#) is multifunctional teams with active and early participation from suppliers, who are in the best position to help design the parts they will be making. However, suppliers will not participate in early design team efforts - and provide valuable assistance designing their parts - if they do not have some assurances that they will get some business out of it. See [Vendor/Partnership article](#) .

Michael R. Katzorke, senior VP for supply-chain management at Cessna Aircraft Company said: A With auction bidding, alignment is damaged. And integration into design and manufacturing is out the window. @²²

NO SUCH THING AS COMMODITIES IN LEAN/BTO

Even companies that value relationships still justify competitive bidding for A commodity@ parts and materials. However, for Lean/BTO, *there are no commodities B* even the most basic parts and materials must be made available spontaneously, so the *service* of supplying these on-demand becomes a very important aspect of supply chain management. And accomplishing this will require supplier/partner relationships, not switching suppliers on every procurement for a lower purchase cost. Companies like GE brag about how much money they think they have A saved@ by bidding on commodity parts like nuts and bolts, but the fact still remains that they are still *purchasing* them, with overhead costs that must be far exceeding the cost of the fasteners for material overhead and distributing a year= s worth of fasteners to GE divisions.

Even for high-cost purchases, B2B transactions still don= t reduce material overhead. Dave Oppenheim, e-business director for Cessna, summarizes the situation for big-dollar items:

A So it still takes 45 buyers to conduct their business. The people aren= t going away. The work isn= t going away. And cycle time is not being reduced, even after spending millions of dollars on these B2B tools. @²³

Instead of competitive bidding, there are many ways to lower the total cost of A commodity@ parts and materials. For low-cost parts, the strategy would be to *eliminate* the much greater overhead costs, such as all the costs of forecasting, bills-of-material, MRP, purchasing, shipping, receiving, and internal distribution. One of the authors favorite lecture props is a bag of three screws that one company *issued* to the assembly area. Not only did the issuance cost hundred of times the cost of the parts, but the assemblers complained that if they lost one of those screws, they had to fill out forms to get one replacement screw!

[Kanban, breadtruck, and min/max resupply](#) techniques, discussed in this chapter, can automatically resupply parts and materials and make them always available in all points of use and in the process *avoid considerable overhead costs*.

ENDNOTES/REFERENCES (see below)

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ENDNOTES/REFERENCES

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