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Are You Overpaying for Your Outsourced Parts?

With few sourcing personnel, complex dynamics and grueling deadline pressures, it is nearly impossible for companies to know if they are paying the best possible price on every one of their outsourced parts. While this deficiency has been tolerated in the past, the constant pressure on corporate performance, combined with increasing material and energy costs, is forcing product companies to pay closer attention to what they are paying external suppliers to make their parts. Fortunately for sourcing experts, innovative software solutions are making it possible for them to ensure consistently optimal pricing for all their outsourced parts and products.

Executive Summary

If you are responsible for sourcing parts to off-site manufacturing facilities, you know how daunting the process can be. With hundreds or thousands of parts, multiple suppliers, quality requirements and tight deadlines, it is difficult to truly know whether you are getting the best deal on every single part.

Sourcing professionals at most companies face tremendous time pressures. They also have to make sure the parts have acceptable quality and a good price. The sourcing professional must often source an overwhelming number of parts in a short time. These, plus a host of other factors make the sourcing process extremely complex. So it is not surprising that even those who are extremely adept will sometimes not find the lowest cost supplier or one with more efficient manufacturing processes.

But new ways of thinking about sourcing can change all that.

Sourcing experts typically employ re-quoting at an existing supplier or re-sourcing to a new supplier (or both) to cut costs. However, it's difficult to know if their efforts have resulted in the maximum savings possible. If a sourcing expert does not have enough information to re-negotiate with suppliers effectively, it follows that he may not be securing the best deal. And with the majority of product cost-reduction goals falling on the shoulders of sourcing personnel, it can be more and more difficult to achieve maximum results.

The bigger problem is ensuring that sourcing professionals are spending their time re-quoting or re-sourcing the right parts. Many parts have little potential for savings through re-quoting or re-sourcing, but a few parts may be opportunities for significantly larger savings. The problem is knowing which ones have the potential for the most savings.

This paper explores the expanding options for product cost savings available for sourcing personnel and looks at how to drive improvement using each method. From re-quoting and re-sourcing, to re-routing parts through alternative manufacturing methods, and identifying parts that need to be re-designed, technology solutions are making it easier for sourcing teams to improve efficiency, achieve their cost-savings goals, and help their companies become more competitive.

Are You Paying Too Much for Outsourced Parts?

When discrete manufacturing companies farm out parts production to external suppliers, there is almost no way to know whether they are paying the best price for every part. In some cases, the company may pay more than it should because there is not enough time to solicit bids from other factories. In others, a supplier may lack the manufacturing capabilities/ machines that could make the part more efficiently and, therefore, more cost effectively.

Too often, sourcing professionals rely on historical cost data in their dealings with suppliers. But with material prices changing every day, new factories coming online overseas, and a host of other factors, historical data does not always reflect today's realities.

So is your company paying too much for your outsourced parts? With hundreds or thousands of parts, you can't know every possible option available and you don't have the bandwidth to solicit quotes from every possible vendor. With so many variables, it is difficult for anyone to know for certain if they are getting the best deal.

What if you could always get the best deal? Sourcing professionals are in a prime position to save their company money. That's why sourcing teams have annual cost-reduction goals. But while target goals have continued to rise, the sourcing function's ability to affect change has not.

Two obstacles that prevent sourcing teams from maximizing their cost-saving efforts are bandwidth and the lack of quality cost information. The time factor is self-explanatory — small sourcing staffs, too many suppliers in too many countries, and too many parts. It's impossible to work through it all. On top of that, sourcing professionals lack information that would help them easily identify cost-saving opportunities as well as conduct more meaningful (and fruitful) negotiations with suppliers.

To continue meeting cost-reduction goals, sourcing professionals require new capabilities to offset the ever increasing complexity of their tasks.

Overcoming the Obstacles with Technology

Product cost management software can help sourcing teams overcome time and information obstacles while achieving significant product cost savings, through real-time, precise, product cost information. Armed with this information, sourcing professionals always know precisely how much a part or product should cost to produce. Access to precise "should-cost" information enables sourcing experts to easily identify where they are overpaying for outsourced parts and to better negotiate with suppliers. The result is significant product cost savings en route to meeting (or surpassing) cost reduction goals.

Using product cost management software, along with a simple methodology based on best-practices, sourcing professionals can quickly and easily identify and confirm opportunities that can result in significant savings in product costs.

Easily identify where you are overpaying for outsourced parts.

Negotiate better with suppliers.

Quickly and easily identify and confirm opportunities that can result in significant savings in product costs.

Best Practices for Driving Costs Out Of Outsourced Parts

Identify and Prioritize Parts

In driving costs out of outsourced parts, the first step is to identify the parts or sub-assemblies with the potential for the greatest savings. Determining the right parts is science in itself. Using basic part information and simple comparisons — such as historical cost versus mass or cost versus complexity — sourcing experts can identify potential opportunities to reduce costs.
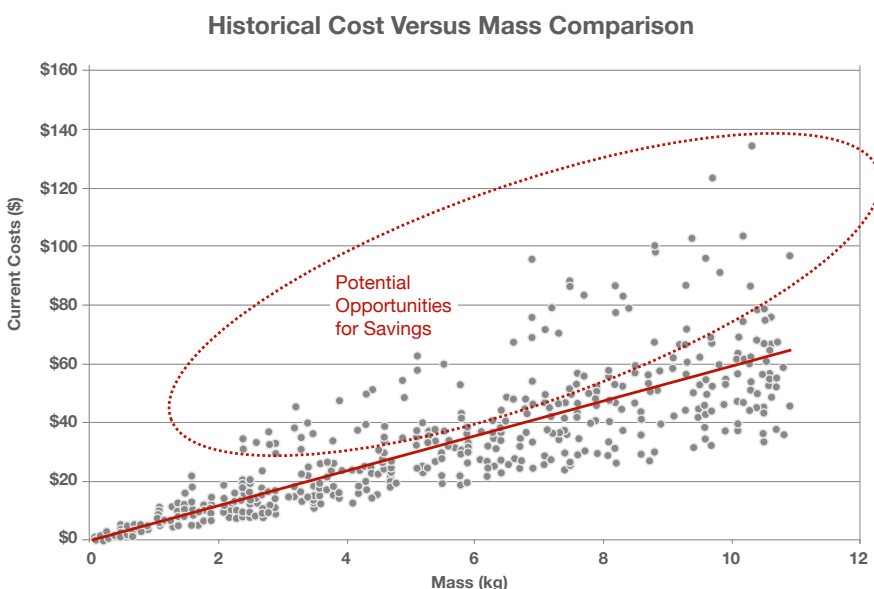

Historical Cost Versus Mass Comparison

Potential Opportunities for Savings

Figure 1. Simple part comparisons, such as cost versus mass, can easily identify potential opportunities to save costs. Using product cost management software tools, this analysis can be performed much faster.

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While identifying potential cost-saving opportunities can be completed manually, product cost management software tools can analyze a greater number of parts faster and use more sophisticated filters. Regardless of the method employed, this first step narrows the total universe of parts to a smaller group that offers the potential for big savings.

With candidates for savings identified, the next step of the process looks at each part and quantifies its cost-savings opportunity. The key to this second phase is knowing what it should cost to manufacture a part in question. When you know what it should cost to manufacture the part in an efficient supplier market (across various geographies), you can compare that amount with the price currently being paid and quickly identify the parts that are out of line.

Here, the product cost management software tool provides sourcing professionals with that "should-cost" knowledge. Multiplying the difference between the historical cost and the "should-cost" by the annual product volume provides a total potential savings for each part. Ranking the parts in order according to annual savings gives the sourcing team a prioritized to-do list.
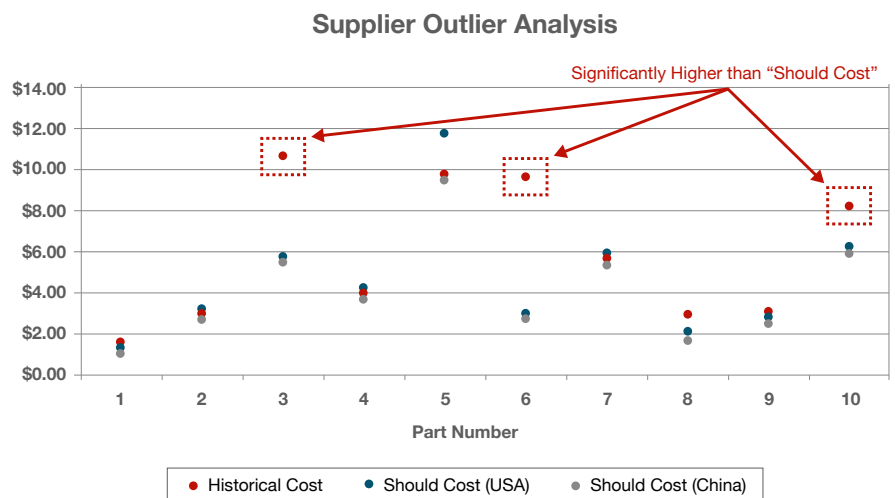
Supplier Outlier Analysis

Figure 2. By comparing the current price being paid to "should-cost" numbers, sourcing experts can easily identify outliers and quantify savings opportunities.

Part	Annual Volume	Historical Cost	Annual Spend	aPriori Cost	Savings
AX202-101	16704	$ 137.72	$ 2,300,509.31	$ 135.49	$ (37,217.07)
AX202-102	14899	$ 26.97	$ 401,826.03	$ 24.04	$ (43,713.67)
AX202-103	1692	$ 229.63	$ 388,533.96	$ 194.96	$ (58,654.87)
AX202-142	8928	$ 34.91	$ 311,676.48	$ 32.65	$ (20,159.42)
AX202-156	8918	$ 34.78	$ 310,168.04	$ 33.86	$ (8,168.89)
AX202-178	4329	$ 60.91	$ 263,648.94	$ 51.11	$ (42,419.30)
AX202-179	6392	$ 40.33	$ 257,789.36	$ 26.54	$ (88,120.11)
AX202-202	6306	$ 37.51	$ 236,547.44	$ 33.79	$ (23,446.64)
AX202-132	35762	$ 6.32	$ 226,015.84	$ 4.21	$ (75,386.30)
AX202-104	3560	$ 60.91	$ 216,809.15	$ 51.11	$ (34,883.10)
AX202-404	3756	$ 52.40	$ 196,814.40	$ 44.71	$ (28,876.13)
AX202-679	2855	$ 59.19	$ 168,957.86	$ 45.14	$ (40,094.31)
AX202-10T	48688	$ 2.88	$ 140,220.00	$ 0.72	$ (105,165.00)
AX202-132	27717	$ 3.08	$ 85,367.59	$ 1.61	$ (40,799.06)
AX202-555	27717	$ 3.08	$ 85,367.59	$ 2.93	$ (4,212.95)
AX202-70M	1612	$ 51.35	$ 82,776.20	$ 46.03	$ (8,572.62)
AX202-1001	2966	$ 25.76	$ 76,404.16	$ 22.08	$ (10,914.88)
AX202-491	1183	$ 55.79	$ 65,999.57	$ 55.73	$ (73.35)
AX202-349	186	$ 339.95	$ 63,230.70	$ 246.13	$ (17,450.15)
AX202-224	7294	$ 7.00	$ 51,058.00	$ 6.47	$ (3,880.41)
AX202-119	1691	$ 26.08	$ 44,101.28	$ 22.22	$ (6,520.50)
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AX202-210	2294	$ 7.73	$ 17,732.62	$ 5.57	$ (4,959.63)
AX202-4T	1087	$ 6.85	$ 7,445.95	$ 4.34	$ (2,724.02)
Totals			$ 15,514,229.65		$ (718,476.11)

Figure 3. By comparing current costs versus "should-cost," you can quickly determine the potential savings for a universe of parts.

Again, the key to this step is having access to a "should-cost" for each product, which is difficult to determine. Company cost experts can manually assess what it should cost to make a few parts, but not the hundreds or thousands that most companies have.

With a product cost management tool, "should-cost" information is instantaneous and automatic. Simply open a part within the tool and the software combines information from the part's geometry, the materials being used, and production volume to generate a precise "should-cost" number.

The most advanced product cost management software not only determines how much the part should cost, but also details the most efficient (lowest cost) manufacturing processes for producing the part based on production volumes, materials, factory locations, and more. As a result, the sourcing team not only has a target price, but also a wealth of supporting information that can be used in any re-quoting, re-bidding, or re-negotiating processes with suppliers.

Re-quote, Re-route, or Re-design Parts

The first two steps of the process identify parts that are candidates for cost savings and prioritize the parts based on total potential savings. The next step determines how to drive cost out of the parts. There are usually three options — re-quote, re-route, and/or re-design.

The easiest way to save money on your parts is to find ones where you are simply paying too much. (A common example would be if you are paying for production parts at a rate originally quoted for the prototype volume.) Regardless of the reason, your analysis has identified parts that cost more than they should.

First, using your product cost management tool, check if the part is being manufactured using the most efficient process available and if you are simply being overcharged for a part. In this case, re-negotiating with the current supplier (or finding a new one) usually results in a lower price.

Part	Current Cost	aPriori "Should Cost"	New Quoted Price	Savings Per Part	Annual Volume	Annual Savings
	$17.32	$6.94	$7.91	$9.41	10,000	$94,100

Figure 4. Comparing the price currently being paid for production parts versus a "should-cost" quickly identifies potential savings opportunities. Parts identified for savings can be marked for re-quote or re-bid.

In some situations, the supplier may not be manufacturing a part as efficiently as possible, driving up the cost to your company. (A simple example would be a supplier, who doesn't have a laser, so parts are cut using a more-expensive turret press operation.) With the most robust product cost management software tools, sourcing experts have access to information on the most efficient methods for manufacturing each part. If suppliers are using different operations to make a part, asking them to re-route (and then re-quote) using the suggested methods should result in a lower price.

Re-routing can often necessitate re-sourcing if the current supplier does not have the required capabilities. Although possibly more time consuming, re-routing often holds greater profit opportunities than re-quoting or re-bidding alone.

> Re-design opportunities include reducing the complexity of the part, reducing material, converting weldments to castings (or vice versa), investigating stampings, and more.

In some instances, the initial analysis will identify parts that appear to cost more than they should, but the most efficient manufacturing processes are already being used and the price using these processes is reasonable. In these cases, the reason for the higher price may be that the part was not designed as efficiently as possible. These parts become candidates for re-design.

Re-design opportunities include reducing the complexity of the part, reducing material, converting weldments to castings (or vice versa), investigating stampings, and more. Re-design has more potential cost savings than re-quoting or re-routing, but in most cases will involve work from engineering to determine the best new design options. This step also may require re-testing for durability and other attributes on the new part.

The preceding steps are designed to help companies identify easily achievable opportunities for cost savings. While the effort to attain these savings is minimal, the financial impact can be enormous.

Most importantly, with a product cost management software system in place, sourcing team members can be sure they are getting the best deal for each new product they outsource to suppliers. Going forward, the sourcing team will have more confidence that all of the new parts are priced correctly from the start and there will be fewer and fewer instances where the company needs to re-quote, re-route, or re-design products.

Summary

Chances are that your company is overpaying for a portion of the parts you outsource to suppliers. Using new product cost management technologies along with a simple methodology, your organization can identify and confirm opportunities for significant cost savings, conduct fact-based negotiations with suppliers, source new parts at the best price from the start, and avoid significant costs by never overpaying for parts again.

Visit **www.apriori.com** to learn more.

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aPriori software and services generate hard-dollar product cost savings for discrete manufacturing organizations. Using aPriori's real-time product cost assessments, employees in sourcing, manufacturing and design engineering make more-informed decisions that drive costs out of products pre- and post-production. With aPriori, manufacturers launch products at cost targets, maximize savings in re-work projects and avoid overpaying for sourced parts.