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Will the Great Recession Cause Capacity-Based Sourcing to Come of Age?

IDC's Bob Parker Says Maybe – but there are Real Challenges

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Capacity-Based Sourcing (CBS) - It's a concept, under different names, that has been floating around the supply chain and manufacturing thinking for some time, but without really making much of an impact in practice.

The basic idea: rather than contracting to procure specific parts or components from suppliers, manufacturers would contract to purchase specific activities or machine time with some subset of them, especially those would make custom parts for the buying company (as opposed to standard, "off the shelf" products).

In other words, rather than contracting to procure 100 widgets, a manufacturer would instead originally contract for say a certain amount of machining and welding time. It would then release orders against that time for different parts to the supplier over time.

A form of CBS now exists in the semiconductor industry, where pre-buying capacity from chip foundries is commonplace.

Why would a manufacturer want do this? Primarily, the answer is to increase flexibility.

Writing in the most recent edition of CSCMP's **Supply Chain Quarterly** magazine, Bob Parker of IDC's Manufacturing Insights says that "Because they no longer have a one-to-one relationship between supplier and purchased part (that is, they are not buying a single part from a single supplier), companies using CBS can adjust and calibrate their supply capabilities to demand."

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He adds that it is in a sense using a different form of the Lean Kanban buffer approach, but one based on capacity, not inventory.

Parker says there are other benefits to the buyer, such as being better able to understand a supplier's cost structure, having an arrangement perhaps more amenable to procuring raw materials for suppliers to use, and perhaps even getting involved earlier and deeper in quality management approaches.

But there are potential benefits for suppliers as well in this type of arrangement – especially so in these economic times.

Credit of course is now much harder for most suppliers to access than before. It is possible in a CBS relationship that a manufacturer might actually contract for a larger block of time/capacity than they would for an equivalent order for a specific

Will the Great Recession Cause Capacity-Based Sourcing to Come of Age? (Con't)

part, since the capacity can be used more flexibly in response to actual demand.

Suppliers, in turn, can use that commitment as a source of collateral to secure the short term financing many require to maintain their operations.

With Benefits comes Risk

Like most things, there are downsides to a capacity-based sourcing approach as well. The most obvious is that for whatever reason, the capacity is not used in the contract period. The impact of this will vary depending on contract terms, but in general it will mean the buyer must pay out some money to the supplier.

There is also some risk that a new product for which capacity is reserved requires expensive new tooling or other costs that would have been factored in upfront if the company was buying parts in the traditional way. Another step may be required that wasn't anticipated in the original capacity "buy." The proportions of total capacity procured may get out of whack with the work actually given to the supplier – e.g., the relationship of machining hours to welding isn't the 2 to 1 expected, but more like 3 to 1.

But as usual, the biggest challenges are likely to be in the process and the people.

Parker says, for example, that using a CBS approach, "The key title is not commodity manager but "capability manager."

While at one level the role is very similar to that of the traditional procurement manager, but with an important difference: the most important piece of knowledge is now longer the functional requirement of the part being purchased, but rather a process-oriented understanding of how the part is produced.

Since the procurement organizations of most companies are structured around specific commodity and part types, often in teams, making this type of transition for some categories of purchased items a challenging one.

Procurement planning will also change substantially for those components. For example, Parker says, "The planning process will develop recommendations for what percentage of the estimated required capacity should be reserved and how far in advance this should be done" – much different from the traditional approach to supply planning.

Of course, contracting will become much different as well, and in a sense more complex, with more variables that probably need to be covered in the contact. Actual purchase orders will reflect capacity or hours, not units.

Software could also be an issue. It is almost certain existing procurement and planning systems will not support this type of transition as is. The effort to make this change, through configuration, custom code, or new software, will vary widely from company to company.

That actually sounds to us like a daunting list of challenges, and Parker agrees.

However, he says that "The new realities presented by the current global recession, however, have generated renewed interest in CBS because of the compelling benefits it offers in the areas of flexibility, cost control, and risk mitigation," benefits he believes will persist long after the eventual economic recovery.