The "Death" of DRP:

An Interview with Darryl Landvater, Co-founder RedPrairie Collaborative Flowcasting

In recent months, many analysts and business administrators have noticed a change in how companies are forecasting demand for their products and necessary supplies. For many, this has led to a question of whether distribution resource planning (DRP) is an outdated, or near obsolete form of predicting how much product will be needed, and when. Darryl Landvater, co-founder of RedPrairie Collaborative Flowcasting, and co-author of Flowcasting The Retail Supply Chain, explains how the "death" of DRP might not be as near as it seems – even with current advances in both computer hardware and software.

Can you start off by explaining the then and now? What is the difference between distribution resource planning (DRP) as we have known it, and where it actually is now?

DRP hasn't changed, and in terms of managing the retail supply chain, it never will. Double-entry bookkeeping is a fundamental element in the financial universe. Similarly, DRP is a fundamental element in the supply chain universe – It doesn't go in and out of fashion, but is simply adapted to meet the changing needs of modern business.

So to amend the question, how do you see DRP adapting today and in the future?

First, DRP can now be pushed all the way to the store level, whereas in the past, that was simply not possible. My colleague, Andre Martin, and I refer to this adaptation of DRP as "Flowcasting." Forecasting at the manufacturing distribution center level will become an obsolete practice. The forecast will exist at the store-level, and the rest of the supply chain will become a simple calculation, just like what happens today in many DC-level DRP systems. Companies are already doing this, so it's not theory but "real world."

Can you give us a little bit of background on the topic before we discuss the additional adaptations?

Sure. Going back to the 1970s, suppliers and retailers have calculated demand for products based on boxes leaving the warehouse – in other words, the people managing supply chains typically figured out how much stuff they'll need based on how much of that stuff was shipped. But this turned out to be a less than ideal way to anticipate demand at the DC. For example, if this year the stores have more inventory than last year, the actual demand on the DC will be significantly less even though the product may be selling similarly at the stores. Or, the demand for the product may increase at the stores, but it may take weeks for the increase in demand to become visible at the manufacturing facilities (one aspect of the 'bullwhip" effect.) So, for decades now, people have realized that it would be better to forecast demand at the store-level and then calculate demand back through the supply chain. It's just that this was not technically feasible until recently.

What changed?

Well, two main problems have traditionally kept forecasters out of the store. The first is the incredibly high volume of data involved with planning products at the point of sale. When you forecast at a warehouse, you're dealing with several thousand SKUs – pallets of product moving in and out. At the store level, however, especially with larger, global chain stores, you're dealing with tens or hundreds of millions of SKUs over the entire organization. Until recently, the software used to plan distribution centers was not able to handle the store-level data volumes with the current computer hardware.

The other problem has been the functional differences between retailers and suppliers. There are significant functional differences between a DRP system at a distribution center level and a DRP system at a store-level. Slow-moving items are one example. There are relatively few of these at the DC level, so they can basically be ignored in DC-level DRP systems. However, at the store level, there are a significant percentage of these items and so they cannot be ignored. Instead, there must be logic built right into the system to handle them appropriately.

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So today, we have both better technology, and software that's been rewritten from scratch to use the fundamental elements of DRP in a new and different way.

Have you seen greater adoption of that technology, along with a more collaborative spirit? Or have you seen one more than the other?

Collaboration is another area where the fundamental principles of DRP have been adapted to a new set of competitive realities. Collaboration has not always worked well. Agreeing on a plan is different from agreeing on a realistic plan. It's easy to sit down with someone and say, 'I need this much product, at this time.' However, actually executing that plan is a lot tougher because the plan may have been flawed but no one realized it at the time it was agreed upon. The plan two companies put together needs to be broken down into the granular tasks like how much product, transportation, labor, and equipment is needed and when. This is a variation on the observation from Peter Drucker that "All great ideas degenerate into work." So, this is another example of how pushing DRP all the way to the store level is an adaptation that provides much more effective collaboration in managing the supply chain.

So beyond pushing DRP to the store level, how else do you feel it has adapted?

DRP can now build loads appropriate to channel. We don't have to use fixed order quantities at the DC or the store level. We can look at the demand picture and build loads that work from the view point of the entire supply chain. As long as we work in multiples that are easy to handle at the store/DC, then if the demand pattern needs 50 this week, but only 35 next week, we can flow the product through the supply chain rather than create piles of inventory at every level.

But you still feel DRP is at the heart of it all?

Absolutely. DRP is a basic building block of any supply chain strategy – Nothing comes after DRP, because it's a fundamental. History shows that DRP has been and will continue to be adapted to whatever competitive realities exist.

For more information

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