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Demand forecasting pays off for Kimberly-Clark

by Paul Taylor

Over the past four years, Kimberly-Clark, the US-based personal and healthcare products group, has made a conscious decision to shift from operating a traditional supply chain to what it describes as a 'value chain' encompassing consumers, its retail supply chain and supply chain partners.

The company, whose leading brands include Kleenex, Scott and Huggies, says this has required focusing on the information flows that link demand at the consumer level with supply capability, removing any complexities that may impede the ability to respond.

So what have the results of this shift been? The company's consumer products business has reduced the number of plants it operates from 19 to 15 and warehouses from 80 to 25. Two initiatives - vendor-managed inventory and plant-direct shipments - have played a big role in this strategy and now account for 30 per cent and 35 per cent respectively of all volume reaching the customer. In the process, Kimberly-Clark has reduced its cash conversion cycle by 20 days and cut its total supply chain expense and increased gross margins.

I asked Greg Schroeder, Kimberly-Clark's senior manager for the company's supply chain centre of excellence, to tell me about the project and its achievements. Below is an edited transcript of our conversation.

Greg, tell me exactly what your job involves and how this process began?
My responsibility spans all of the strategy work and the new capability we have built into what we call the 'Advanced Capability Team' with a focus on supply chain connections, all the way from dirt to shelf.

Since 2007 Kimberly-Clark has been on journey moving from the traditional supply chain orientation that was very much manufacturing-focused, to a supplier focus. We augmented that initiative with a demand-driven strategy change that was very consistent with what a lot of other manufacturers in the environment were doing.

One of the big things we recognised at the time was that starting with Walmart and expanding out to several other major retailers, we were beginning to see an explosion in point-of-sale data and information about customer activities. We knew we had to do a better job of understanding and interpreting all the information we were getting from the field.

How did you go about sifting though this data and making sense of it?
We engaged with Terra Technology [a specialist supply chain technology company focused on improving demand forecasting for consumer product manufacturing companies] as a first step. We have now reached the point where we are consistently using point of sale and other customer data all the way back into Kimberly-Clark's manufacturing facilities on a daily basis. We are using that data not only to determine what we ship to our distribution centres, but also to provide a direct connection all the way back to our supply base - all the way back to the (paper) pulp.

Can you give me an example of how this works?
Well, for example, I am sure that after the recent hurricane [on the US east coast] that every consumer products company that supplies North American retailers really struggled to understand what happened as a result of it.

Our forecast, like everyone else, was terrible throughout that week because no one could predict [the storm's] consequences. But where we differ now from others is that this technology provides us with an ability to understand every day what retailers and customers were doing as they began to get back to some sense of normalcy.

We were able to see consumers going back to the stores to start buying their diapers and their Kleenex and we could tell when the Walmarts of the world and the BJ's Wholesale clubs in the northeast started to restock commodity items, or whether they were still focused on things like generators and clean up supplies.

Similarly, around Christmas time we always really struggle because the GI Joe's and the Barbie dolls get all the priority for handling and stock movement during that time of the year.

As a result of our ability to tap into this point-of-sale activity, we are now in a position to answer questions like, 'What is the recovery at the retailer level?' or 'How are consumers reacting?' and then make sure that we have got stock in position to support that.

So what were you able to do in the wake of the hurricane as a result of having the system that you couldn't do before?
In the past, we would release and rely on a primarily history-driven forecast, so for example, if we sold 1,000 last week, we are probably going to sell 1,000 this week. We would use this weekly historical approach to adjust our base forecast and use it to determine where we were going to place stock. When orders came in, we used those to adjust our forecast.

What is different now is that because we have access to point-of-sale data and can see the demand that our retailers are facing, we are able to better predict what those orders are going to look like.

As a result, our need to ship product from the west coast to the east coast at the last minute on a rush truck as opposed to rail because we anticipated demand wrongly

is reduced. We have seen a significant reduction in rush shipment activity. We have been able to better handle variables and generally have stock in the right place to meet variables, because we have reduced the incidence of inaccurate forecasts.

When did you actually implement this demand forecasting system?
We really took a two-phase approach. First we started to look at our customer order patterns, then about six months later, we reached out further, grabbing point-of-sale data from select retailers and other data such as stock from distribution centres to their stores.

And in terms of data points, how much data are we talking about?
I'm not sure about the total, but it's an exhaustive amount of data. I know at one point in time we had in the neighbourhood of 80,000 SKU/location combinations across our total North American network. If you expand that to the number of point-of-sale opportunities that exist and the retailer locations that exist the numbers are staggering.

The consumer products group has reduced its warehouses and plants very significantly. Was this as a result of your demand sensing project?
Exactly, right. If you step back, we developed a set of initiatives that are linked together. The Terra Technology project and the forecast visibility and responsiveness it enabled links to our distribution strategies that have ultimately enabled us to reduce our distribution centres to more select facilities. That is also linked to efforts to tie our manufacturing strategies with our lean implementation.

They are all very interconnected and that is really the value of the journey and the value of the demand sensing strategy. If we were to just implement a forecast improvement programme by itself, it would really deliver no inherent value.

How quickly can you tweak something like manufacturing production based on the information you are getting back in the marketplace? Is this something that you can do on a daily basis now?
Well one of the areas that we're really aggressively going after now is how do we improve the connections from the retailer all the way back into our distribution and manufacturing.

We have certain supply chains where we have really been focusing on lead time reductions, where if we have a demand response that we see happening in the marketplace today, we will tomorrow be in a position where we will have trucks redeployed to go to a specific area and then on the subsequent day we will be advising on production changes that could be enacted within seven days.

We have some supply chains that turn around on a seven-to-ten day basis. Some of them we're still working to reduce, but we're using segmentation strategies to be selective in determining where should we have that type of responsiveness, and where is it okay if we are still at a two or three week lead time.

So where would you say Kimberly-Clark is in this process? Are you in the middle of a journey rather than at the end of it?
I am not sure you ever get to the end of it. We do not anticipate that the retail environment will become any less dynamic, so we have to continue to stay on top of our responsive strategies to stay competitive.