

CPFR is not a radio station.
It stands for Collaborative Planning, Forecasting and Replenishment

BY SALLY PRASKEY

Store Tech

If retailers
and suppliers
exchanged
accurate data,
CPFR could be



the beginning of a beautiful friendship

For consumers who can't find what they're looking for on store shelves, out-of-stocks (OOS) are an inconvenience. For grocery retailers, they represent a significant drain on profitability. According to the study *Retail Out-of-Stocks: A Worldwide Examination of Extent, Causes and Consumer Responses*, OOS continue to plague those working in the consumer-goods industry. "The advances in supply chain management, the initiatives of Efficient Consumer Response (ECR) and category management and the investments in inventory-tracking technology have not—by and large—reduced the overall level of out-of-stocks on store shelves from what was reported in previous studies," concluded the 2002 study conducted on behalf of Grocery Manufacturers of America, Food Marketing Institute

and CIES—The Food Business Forum. "Out-of-stock rates vary wildly among retailers and their outlets depending on a variety of factors, but the majority tends to fall in the range of 5 to 10%. More importantly, in studies that examine faster-selling and/or promoted products, the OOS rate exceeds 10%." That translates into a loss of about 4% of sales for the typical grocery retailer—no small change.

While there are many causes for OOS, 70% to 75% occur at store level. Retailers either have ordering processes/cycles that are too lengthy, underestimate demand or don't keep shelves stocked, even though the product is at the store. About half of OOS can be blamed on store ordering and forecasting, another 25% on poor shelving and replenishment practices and the remaining 25% on combined upstream causes.

Although the study was released

in 2002, Elaine Smith, senior vice-president at the Food and Consumer Products Manufacturers of Canada, says the situation hasn't improved. "It's still an issue, and a couple of things need to happen before it will improve," she says. "If you have point-of-sale information from a retailer back through to the supplier, that gives you a better chance of reducing the problem. There's no magic formula, but this is at least better than some of the ones that have been used in the past, which largely looked at historical data and worked out mathematical formulas that did not really fit with the marketplace."

Smith advocates Collaborative Planning, Forecasting and Replenishment (CPFR). CPFR promotes using common tools and processes to improve supply-chain planning through accurate and timely information flow. It requires



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basic planning data be identical for all trading partners, ideally based on point-of-sale scanning data.

While many predicted CPFR would succeed ECR in supply-chain management, its progress has been slow. Wal-Mart and U.K.-based retailer Tesco have made strides, notes Smith, but there are hurdles to overcome before its adoption becomes widespread.

First of all, says Smith, retailers must link point-of-sale data from the store to the back room to the warehouse. The second—and largest—hurdle is cultural. “There has to be an incredible trust between trading partners, and a willingness to have constant dialogue as the retailer and the supplier get closer and closer to, for example, promotional events, so the information you’re dealing with is the most current. There’s no other way of getting closer than supplying that point-of-sale information.”

Scientific modelling systems, such as DemandTec’s consumer demand management application, can help retailers forecast demand and reduce OOS. By analyzing data on promotions, weather, OOS and other variables, the system can develop a set of models that take into account cannibalization among highly substitutable products and affinities within and across categories, says Suzanne Valentine, vice-president, merchandising analytics, at the San Carlos, Calif.-based company. “We end up with a very robust set of forecasting equations that allows us to forecast demand all the way down to the store SKU level.”

Valentine says there are different ways the software can address OOS. “We have algorithms that we leverage behind the scenes to identify what we think are out-of-stock weeks. This is based on historical context for that product. So we can look through time and see what

seems to be unusually low volume, or even zero volume. We’ve leveraged that information in building the demand model because it’s important for us to distinguish between out-of-stock situations and situations in which a product was on the shelf but just wasn’t chosen.”

She says her company also works with clients to compare her company’s demand forecast to what actually happens. “In some cases, [retailers] see that the forecast demand was higher than the actuals scanned, which would indicate that they didn’t have enough stock in the store to meet the demand.”

Demand forecasting’s benefits needn’t be confined to the large chains. DemandTec, for example, offers both installed and hosted (in partnership with IBM) software options. With the latter retailers pay a monthly fixed fee and DemandTec and IBM manage the installation and monitor the application. “This option is probably perfect for smaller chains who want the sophisticated analytics but don’t have the technology infrastructure to run it themselves,” says Valentine, adding that return on

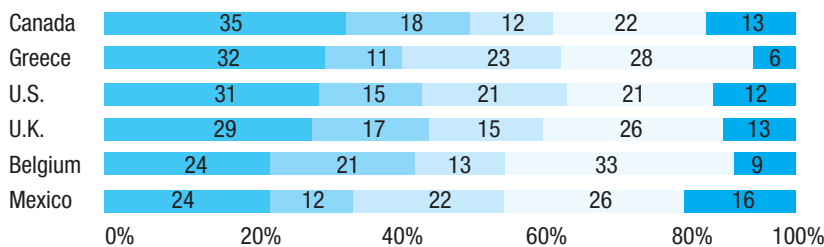
investment is typically an improvement of 1% to 6% in revenues, 5% to 8% in gross margins and 2% to 4% in unit volume.

But “whether it’s demand forecasting or whatever the relationship between the trading partners is, people are looking to take costs of the supply chain,” says David Wilkes, senior vice-president at the Canadian Council of Grocery Distributors. “There are many ways to do that. One of them is to have more accurate and timely forecasting to reduce costs associated with having product in the stream rather than on the shelf. The competitive set is broadening and becoming very aggressive, which will continue to put pressure on making sure that you have no unnecessary costs in any aspect of your business.”

As for those consumers who couldn’t find what they were looking for on the store shelf: 9% don’t purchase the item, 26% substitute a different brand, 31% buy the item at another store, 19% substitute the same brand, and 15% delay the purchase. It all adds up to a loss of almost one half of the intended purchases.

And that’s not a stock option! ☹

Average consumer responses across four categories



Source: Retail Out-of-Stocks: A Worldwide Examination of Extent, Causes and Consumer Responses,” Emory University, Goizueta Business School, Atlanta, Ga; University of St. Gallen, Institute of Technology Management, Switzerland; and College of Business and Administration, University of Colorado at Colorado Springs, 2002.

