



Market6 Key Application Area: Out-of-Stocks

Out-of-Stocks (OOS) have deteriorated customer service as long as groceries have been sold. To better manage store inventory and improve service levels, CPG manufacturers need to understand which stores are out-of-stock, anticipate which stores are likely to have issues, and better understand the impact of OOS on sales.

DemandView™, from Market6, enables retailers and CPG manufacturers to identify current and likely out-of-stocks. From this, they can quickly understand the impact on sales through the application of Market6's three out-of-stock methodologies:

- Predictive Out-of-Stocks
- Daily Potential Out-of-Stocks
- Backward look at sales and stock patterns to determine potential out-of-stocks.

Predictive Out-of-Stocks

DemandView™ provides forecasts of future sales, orders, deliveries and inventory. When the demand (sales) forecast indicates current orders and deliveries are likely to be insufficient to meet the probable demand, DemandView™ indicates an out-of-stock is expected and identifies which product(s) are likely to be out-of-stock, plus the specific dates and stores where the out-of-stocks will occur. DemandView™ also indicates the potential lost sales due to the out-of-stock condition.

Daily Potential Out-of-Stocks

In the past, many companies have attempted to estimate out-of-stocks by comparing actual sales to their sales forecasts. When sales are significantly below some predetermined threshold, there is an indication of a potential out-of-stock condition.

DemandView™ calculates expected sales for every product, every day. The calculations are based on past history, day of the week, holidays, local events, promotion pricing and other factors. DemandView™ also keeps track of the variance in sales and past forecast errors. Based on these expectations, DemandView™ can determine, for a given product in a given store on a given day, whether the sales rate has fallen below expectation by an amount sufficient to trigger the Daily Potential Out-of-Stock calculation.

Further, DemandView™ estimates the accuracy of inventory levels every day using a proprietary inventory scoring process. DemandView's daily update of demand and inventory forecasts provides the best available view of potential out-of-stocks.

OOS Pattern Recognition Algorithm (OPRA)

OPRA is an after-the-fact measure of potential out-of-stocks. OPRA looks at a daily data within a promotion week to determine potential out-of-stocks. The advantage of this approach is that this analysis provides the foundation for the predictive methodologies described above.

For each of the Market6's three out-of-stock methodologies DemandView™ calculates the following measures:

- Out-of-Stocks by item, by day, by store – and all aggregates
- Out-of-Stock tracking expressed as % or number of stores that were OOS that day
- Anticipated OOS expressed as % or number of stores expected to be OOS by day for the next 30 days
- Lost Sales from Out-of-Stock which is the Expected Sales that were not realized because of the OOS
- Anticipated Lost Sales from Out-of-Stock

Market6 provides a systematic approach that is proven to increase sales and consumer satisfaction derived from steep reductions in out-of-stocks.