



Customer Success Story

Beer, Wine & Spirits Wholesaler

Halo merges transactional data with supplier shipments to create the ultimate Distributor Forecasting, Demand Planning and Truck Building solution

Business Situation

- No checks and balances in place for large supplier forecasting and shipments
- Manual forecasting for smaller suppliers
- Labor-intensive order entry
- Heavy reliance on Excel

Benefits Achieved

- Created an automated, data-driven forecast capturing seasonality and price discounts
- Combined forecast with Demand Planning metrics to highlight problematic SKUs
- New Demand Planning application helps Planners build supplier trucks that maintain best in class inventory and customer service levels

Why Halo?

- Single technology investment used for Forecasting, Demand Planning, Sales and Finance
- Easily automates SKU level forecast by supplier and warehouse location
- Incorporates automated forecast with inventory, orders lead time and safety stock to assist Planners
- Profit per case virtually automates an annual budget

Automating distributor's forecast, inventory and purchase order creation improves operational efficiency.

About the company

Based in the American Midwest, this leading fine wine, spirits and beer wholesaler distributes major and smaller craft products from multiple warehouses. Recently, the business recognized the need for an accurate, automated and algorithmic forecasting tool that can capture seasonality and heavy price discounting. Heavily discounted SKUs create enormous variances in depletions from one month to the next. No standard formula or trend analysis can account for these profound swings.

As a result, the distributor faced a significant inventory problem – one that we find to be a problem for many distributors. Specifically, the company was not monitoring code dates in their forecasts and reporting. Without this information, they were receiving large shipments that were driven by supplier forecasts

rather than customer demand. This was contributing to an increase in fire sales and operational expenses, driving down overall profits. According to senior executives, out-of-code product had become a quarter of a million-dollar problem.

Outside of fine-tuning the forecasting algorithms, Halo needed to develop a Demand Planning platform that fit their needs, helping their planners to build out 42,000 lb. trucks from their suppliers and improving their ordering efficiency. Halo's Data Science department, led by PhD Bill Panak, provided advanced machine learning techniques and algorithms to increase forecast accuracy, decrease effort and maintain customer service levels.

“If you can wake up every morning and have up-to-date data from the previous day, in this format - drillable, chartable and exportable - with smart algorithms predicting the future on a SKU by Supplier basis that you can play with, adjust and get smarter with, it is very, very valuable.”

Chief Executive Officer

The benefits

In the past, if this distributor was caught off guard by an out-of-stock situation, a waiting game followed. How quickly would new stock come in? How long could the customer make their current inventory last before becoming irritated and switching to a competitor? In the worst case scenario, the customer might switch and never come back. Now, with Halo in place, out-of-stocks have been reduced by 19% and the distributor reports better sales and customer retention.

Moreover, operational expenses have decreased since implementing Halo. An excess, or shortage, of inventory often leads to an increase in trucking, logistics, and labor hours for picking-line operations, fire sales and inter-company transfers between warehouses. Halo has helped mitigate all of these issues. And finally, with Halo in place, the operations and purchasing teams have seen a significant decrease in their reliance on Excel and their time spent analyzing sales, manually forecasting and placing orders.

The solution

This Distributor's request was to integrate information on promotional discounts into order forecasts. Specifically, these promotional discounts are published months in advance, and retailers order more beverage when prices are discounted. The timing and degree of discounting is controlled by the producer, then passed to the distributor. While promotional patterns are fairly stable over the long-term, large shifts in timing and size of discounts do occur. Past attempts to forecast the impact of the discounts failed, causing them to adopt a primitive forecasting method that accommodated data shifts but failed to account for the richness of available data. Halo then introduced a machine-learning forecasting method that proved to be very sensitive to discount shifts, improving forecast accuracy more than 50%. The machine-learning technique was sufficiently transparent for this Distributor to adopt the more accurate forecasting method even as they were working through the larger platform migration to Halo. Parallel testing over several months proved the reliability of the new method, greatly enhancing their confidence in adopting a machine-learning forecasting tool.

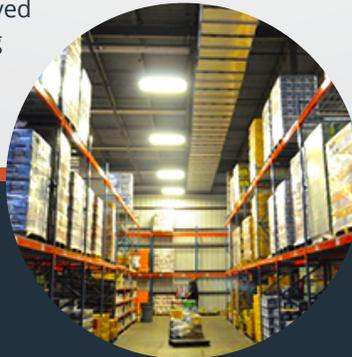
Once Halo had their forecast automated, the data warehouse acceleration tool was used to quickly handle all of the company's data and turn the raw historical values into future insights that now drive daily business decisions. Data were easily consumed from various data sources and brought together into a single location, utilizing non-proprietary Microsoft SQL Server technology as the data store. With the data extracted and the data model in place, Halo easily and automatically cleansed and transformed the data. During this process, valuable metrics such as safety stock, lead time, and days on hand were all dynamically calculated based on industry norms. The company then made custom tweaks based on its circumstances.

These metrics are combined to produce a reorder quantity by SKU and Supplier that's pushed to Halo for visualization and distribution. In Halo, the company can now create a consensus demand plan that can be fed back into the Halo data warehouse. From this point, the order quantities can be automatically fed into their RAS to cut a PO, while still having the ability visualize previous demand plans.

The future

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Now that this distributor has an automated platform for managing their forecasts, inventory and orders, they are introducing code date monitoring to decrease the amount of expiring product and allow them to not only realize the profits they expected, but focus their time and effort on customer service and growing their business, instead of operational chaos. And to tie the whole system together, they are linking financials and profit per case to the forecast to help them automate an annual budget.



Corporate Headquarters

4885 Greencraig Lane
San Diego, CA. 92123
United States
1 888 300 0219
info@halobi.com

APAC Headquarters

Massey University House,
Level 8, 90 Symonds Street
Auckland 1010
New Zealand
+64 09 379 9099
info-apac@halobi.com