Demand Planning & Forecasting

Pet Food Manufacturer

Created a comprehensive and customized demand planning model using advanced statistical algorithms to enable the company to accurately forecast demand and plan supply more efficiently

Demand Planning & Forecasting for a Pet Food Manufacturer

Situation

- The client's existing processes to estimate future demand were manual and did not accurately account for increased manufacturing capacity
- Partnered with the client to create a comprehensive demand planning model to help predict future demand using advanced statistical algorithms considering seasonality, trends, and promotions, providing the flexibility to overlay marketing or sales team inputs

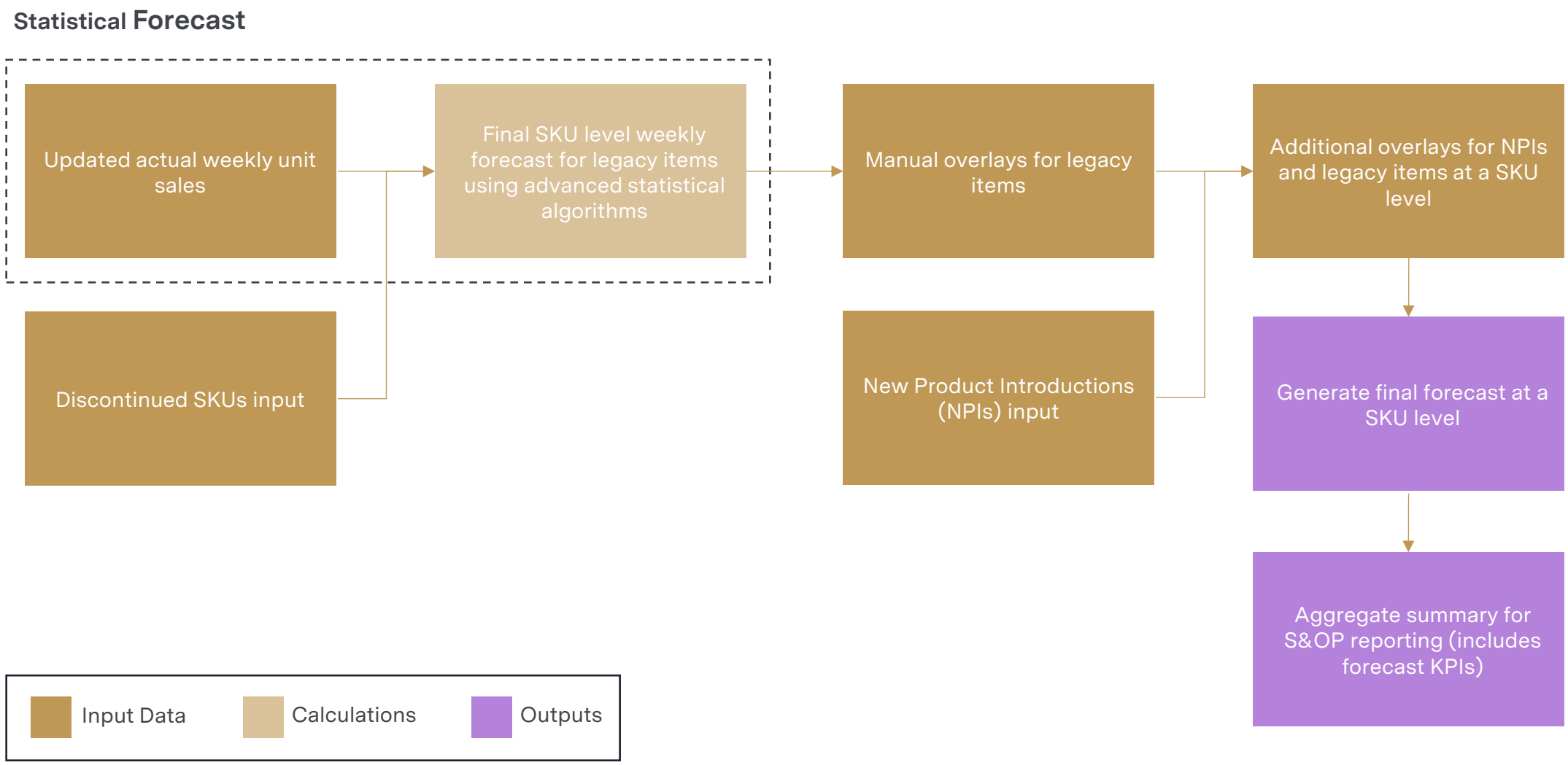
Accordion Value Add

- Created a demand planning model customized to suit the unique requirements of the client to be able to forecast for each sales channel, including the global business
- Estimated the final demand forecast by SKU and sales channel, taking into consideration future product expirations, new product introductions, open sales orders, and user overlays to incorporate inputs from the sales and marketing teams
- The demand models also included a performance indicator to compare the forecast with actuals every month, making any tweaks to the forecasting process to fine tune the results

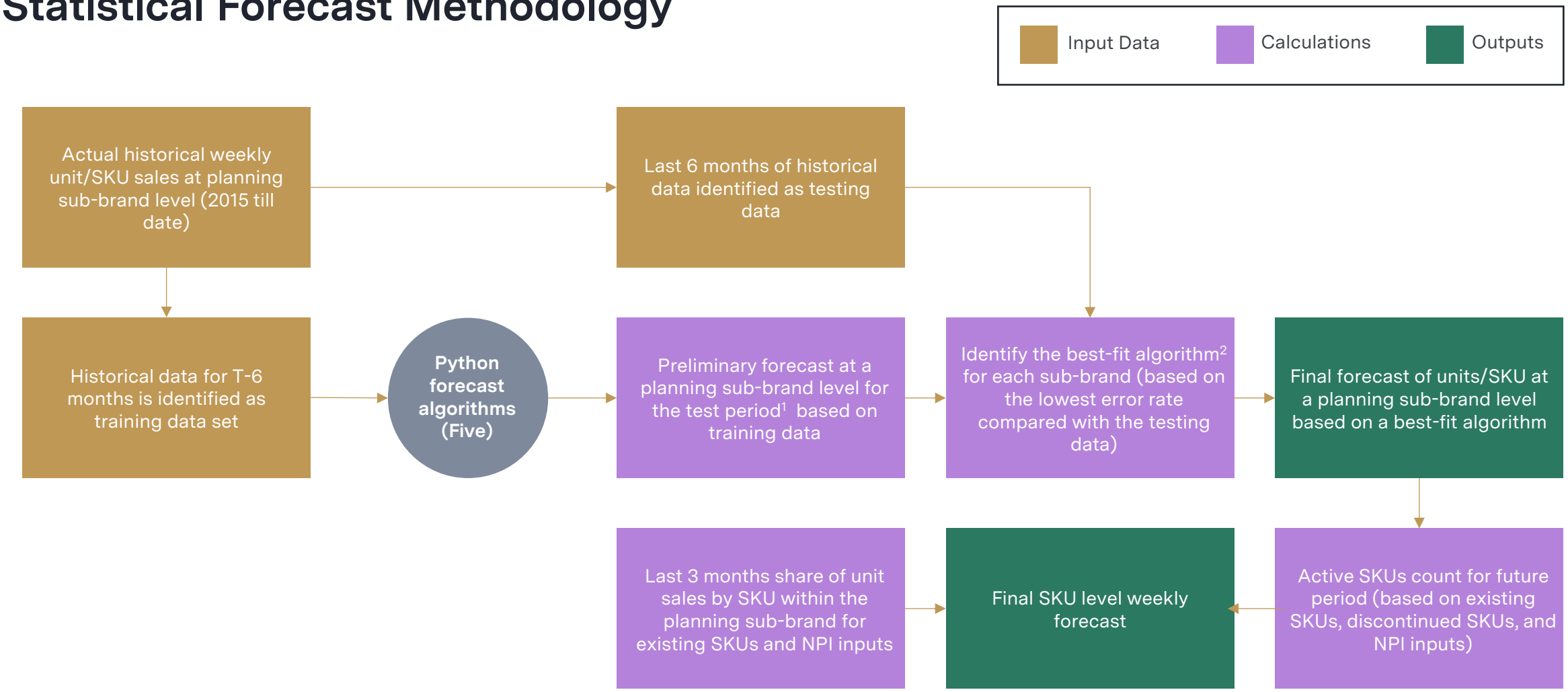
Impact

- The demand forecasting model improved the forecast accuracy by 20%
- The improved forecasts helped the company achieve a10% increase in service levels and generate 30% revenue growth YoY
- The outputs from the demand models enabled the team to plan supply more efficiently, reducing the turnaround time for monthly planning process by 50% and accurately assessing the net product needs to plan inventory and thereby improving the service levels

Demand Planning Methodology



Statistical Forecast Methodology



1. Includes 06 months where we have the actual data in order to back-test the forecast results
2. Algorithm considered include ARIMA, Holt-Winters –Seasonal, Holt-Winters – Non-seasonal, Simple Exponential Smoothening and FB Prophet. Best-fit algorithm (for planning sub brand) is identified based on the Forecast error from each algorithm