



OPTIMIZE DEMAND PLANNING

Case Study



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About The Client

Our Client is a transnational consumer goods company co-headquartered in London, United Kingdom and Rotterdam, Netherlands. Its products include food, beverages, cleaning agents and personal care products. Client is organised into four main divisions – Foods, Refreshment (beverages and ice cream), Home Care, and Personal Care.

Challenge

Demand planning is an essential process in determining how much product a business will sell to satisfy all customer demands. It typically involves completing eight steps in a monthly cycle. The process begins with a review of the recent customer sales performance compared with earlier expectations and assumptions, and a cleanup of any data issues or outliers that are believed to be one-off events. These data are used to generate a baseline statistical forecast. Planners will discuss, with marketing and sales, and incorporate the latest market intelligence gained from the five C's:

1. Customers
2. Consumers
3. Competition
4. Consumption
5. Cannibalization

Planners also consider changes in company plans, such as promotions, advertising, sampling, new products, or pricing. They determine with the help of statistical tools if any of these will impact the forecast of future demand. Once they make a forecast, they review it in light of known category trends, run rates, and competitor information among other measures. Then they work with the finance team to value the forecast. The resulting unbiased forecast is presented in the Demand Review meeting. In this meeting, cross-functional S&OP members challenge the forecast with intelligence on the trends, assumptions, key indicators (accuracy and bias), and the potential up- and downside risks. The goal is to arrive at a consensus forecast. This number may require some post-meeting reconciliations by the demand planning team before the final agreement is made. When businesses were managed locally, this process could be entirely completed by local teams. Once demand planning has moved to regional or global business models, how can the teams keep close to the local trends, insights, and shifts?

The terabytes of unanalyzed data, the growing operational cost, the incapacity to meet the mounting requirements/day, unfitting replenishment strategy, incompetence to meet emergency requirements and the inadequately utilized in-house and co-located warehouse space, was a growing concern for the company. In order to retain faithful customers, its industry headship and reduce its supply chain's operational expenditure, the company required to:

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- Transition from Monthly Move up Fulfillment commitment
- Meet emergency requirements
- Reduce Inventory Carrying Cost
- Utilize meritoriously, its Logistics Network
- Reduce Operating Cost
- Replenishments
- Effectually handle 350,000 parts transactions per month
- Effectively deal with their SKUs of finished goods

Solution Overview

Application of domain knowledge, full-stack proficiency in Hadoop (HDFS, MapReduce), Hadoop Projects (Mahout, Pig, Hive, H Base, Flume, Oozie), experience setting up and managing Hadoop Cluster, familiarity collecting log data, programming languages and scripting languages know-how, understanding of different databases and the expertise in Big Data Analytics were the enablers to establish practices, to fulfill the client's demanding need to get ahead of the competition, by refining its decision making process.

OUR INTEGRATED FORECAST, SOURCING & DELIVERY ENGINE

The ESS solution for Streamlining Supply Chain, using Big Data Analytics - encompasses an integrated solution from Demand Forecasting, Sourcing to Distribution, utilizing industry best practices for enabling quicker pre-emptive decision making possible from the terabytes and petabytes of unanalyzed data.

Our Model encompasses

- Supply chain enterprise transaction system from sourcing till delivery
- Big Data & Analytics Engine for high performance, scalable, flexible data crunching to analyze pricing, forecasting, budgeting, quality, customer experience.

SOURCING

- Automated Systems integrated with Suppliers
- Heat Map of Potential Supplier's Risks
- Collaborative planning with Supplier's and Consumers
- Supplier Managed Inventory

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- Predict Sourcing - From Whom, When, What, Where, How Much and at what Price
- Inventory Optimization

DEMAND FORECAST

- Scalable, Flexible Forecasting Engine
- Digital Marketing Insight- Email, Campaigns
- Events - Office, Institute, Social
- Market Research - Ads, Magazines

DISTRIBUTION

- Supply Chain Network Modeling
- Customer Return Tracking
- Automated & Connected Communication
- Lean 6 sigma & Transportation Optimization
- Move Supply Chain closer to Major Market segments
- Increase Inventory Turns
- Barcoding, RFID

Value Delivered

- Move up Fulfillment commitments
- Meet emergency requirements over night
- Reduce Inventory Carrying Cost to half
- Utilize meritoriously, its Logistics Network by eliminating FLCs, reducing the Logistics Centers from 53 to 12
- Transition from Monthly Replenishments by Transporter to Weekly Replenishments
- Effectually handle 350,000 parts transactions per month
- Effectively deal with SKUs of finished goods