Demand Planning for S&OP

Two-Day In-Person Workshop

Improve Your Forecasts With Better Models and Diagnostics! We Will Show You How To:

- Set up a Demand Planning Process for your Business
- Use Statistical Modeling to Create Baseline Forecasts
- Incorporate Promotional Events Into Your Forecast Modeling
- Use Forecast Error as a Diagnostic to Improve Model Quality

Demand Planning for S&OP

Demand Planning is the art and science of accurately forecasting the demand for your supply chain. An accurate demand plan helps you reduce inventory costs and increase customer service levels. When properly implemented and used in the Value Chain Process, the demand plan helps create a lean and customer-centric supply chain. In this workshop, you will learn how to develop a baseline statistical forecast and leverage a collaborative process to add customer intelligence. The result is a more accurate plan that includes promotional activity, customer intelligence, and display activity. This two-day intensive workshop will take you through an overview of the demand planning process, organization, and structure within the supply chain and comprehensively cover statistical modeling to create accurate forecasts. We will also talk about model diagnostics to improve the quality of the forecast models with specific references to popular applications such as SAP APO, Forecastpro, Oracle, Demantra, etc.

Insightful information on...
- Demand Planning Overview
- Mechanics of Forecast Modeling
- Forecast Performance Metrics
- Model Diagnostics
- Measure and use Forecast Accuracy
- Promotional Planning
- Consensus Demand Planning
- Event Modeling

Who Should Attend?
- Demand Planners
- Forecast Analysts
- Forecasting Managers
- Directors of Forecasting & Demand Planning
- Directors of Value Chain
- Analysts in the Supply Chain
- Inventory Planners
- Operations Planners
- Financial Analysts
- Directors of Logistics
- Directors of Customer Service

Mark Chockalingam Ph.D.
President and Founder

Mark Chockalingam is the President and Founder of Demand Planning Net, which became Valtitude in September 2019. In an operational capacity, Mark serves as Chief Executive Officer of Valtitude and is responsible for strategy and general management.

Mark has over twenty years of consulting and corporate experience in the areas of Predictive Analytics, Sales Forecasting, Supply Chain Optimization, and Integrated Business Planning.

Mark has worked with companies ranging from Fortune 500 such as Pfizer, Miller SAB, Colgate-Palmolive, Honeywell, Eastman Kodak, Facebook, Mars, Qualcomm to small and medium-sized companies.

Mark has a Ph. D. in Finance from Arizona State University, an MBA from the University of Toledo, and is a member of the Institute of Chartered Accountants of India.

Shruthi Mrinalan
Sr Manager SCM Solutions

Demand Planning Net

Shruthi Mrinalan, a seasoned Data Scientist and Senior Supply Chain Manager at Valtitude, brings expertise in Supply Chain Management to the table. With a hands-on proficiency in various SCM tools such as Kinaxis, SAP IBP & Demantra. Shruthi's proficiency also extends to Statistical Modeling & Process Enhancement, specializing in Demand Planning and Supply Management. She plays a pivotal role in process design & crafting end-to-end supply solutions during implementation. She has worked with companies like McCain Foods, Honeywell, Abbot Labs, Ghirardelli, Sabra, and holds qualifications from Bangalore University and the University of Texas at Austin.

Workshop Agenda

Day One

8:30 am *Continental Breakfast*
9:00 am *Welcome & Introduction*
9:15 am *Demand Planning Overview*

- Planning objectives
- The Service – Cost – Balance Model
- Define your Plan
- Budgeting vs. Forecasting vs. Planning
- Beyond Statistical Forecasting
- Key Components of a Demand Plan
- Terminology in Planning – Forecast Horizon, Buckets & Periodicity
- Forecast Pass
- Demand Management

10:45 am *Data Integration and Cleansing*

- It is all about the data
- The Forecast Problem and Data Collection
- Define True Demand
- Data challenges - Shipment Vs. Orders - Gross Demand Vs. Net Demand
- Historical shifts in demand
- Data filtering
- Outliers – Identification and Correction
- Tolerance band
- Methodology for outlier correction

12:30 pm *Lunch Break*
1:30 pm *Stat Modeling and AI-driven Planning*

- Demand Modeling
- Key components of demand

- Additive Vs. Multiplicative Seasonality
- Modeling by decomposition
- Introduction to Demand Modeling
- Balancing between Fit Vs. Model Robustness
- Uni-Variate Time Series vs. Multi-Variate methods
- Moving Average
- AI-driven Planning and Expert Models
- Introduction to Planvida

3:15 pm *Advanced smoothing models*

- First Order Exponential Smoothing
- Holt Models to Accommodate Trend
- Holt-Winters Model
- Exponential Trend and Dampening
- Interaction between components
- Higher order Models

4:15 pm *Tea Break*
4:30 pm *Modeling special cases of Demand*

- Product Life Cycle & Long-term Planning
  • Product Lifecycle and trend
  • Launch Forecasting
  • Volume effect online extension
- Event Modeling
  • Event Modeling
  • Baseline vs. Incremental
  • Illustration of Event Models
- Planning for Intermittent Demand
  • What is Intermittent Demand and what causes it?
  • Strategies for intermittent demand
  • Modeling for Intermittent Demand

Day Two

9:00 am *Product Portfolio Management*

- Impact of Data Volatility on SCM
- Measuring Volatility
- Impact of Multiple Extreme Observations on Volatility
- SKU Segmentation for demand modeling and inventory strategies
- Modeling by exception

10:30 am *Demand Planning Analytics toolkit*

- Definition of Demand Forecast Errors
- Forecast Accuracy
- Forecast Bias vs. Forecast Error
- Error and Volatility Reduction
- Errors across SKUs vs. Errors across time
- Model Diagnostics vs Performance
   - MAD
   - MAPE vs. MPE
   - WAPE - Root Mean Squared Error
- Measuring forecast performance
- Forecast Performance Metric
- Forecast errors and actionability.
- Sources of Forecast Error
- Definition of Demand Planning Metrics - WAPE & Bias
- Types of Bias
- SKU Mix Error
- Error Analysis for Continuous Improvement
- Forecast Accuracy Reporting

1:00 pm *Lunch Break*

2:00 pm *Why S&OP?*

- Fragmented Planning Activities
   – Supply chain challenges
   – Service, costs and inventories
- Disparities between the Financial forecast and operational forecasts
- Bottom Line challenges from Fragmented Planning
- Benefits of a holistic S&OP Design
- Core Components of SIOP
- Consensus Demand Planning
- Rough Cut Planning and Supply Collaboration
- Executive Presentation
- Demand-Supply Balancing

About Us

Valtitude / Demand Planning LLC, based in Boston MA, is a business process and strategy consultancy that specializes in Sales Forecasting, Demand Planning and Sales and Operations Planning.
We have helped a variety of businesses across industry verticals to improve their planning process and create value through SCM analytics and diagnostics, process re-design, solutions implementation, and customized on-site training. We provide strategy and solutions consulting to customers across a variety of industries -Pharmaceuticals, CPG, High-Tech, Food and Beverage, Quick Service Restaurants, Utilities, Oil and Gas, Aerospace, Chemicals, and Industrial Manufacturing, Automotive, Financial Services, Publishing, etc.

Get In Touch

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