

# **Demand Planning for S&OP**

2-day Tutorial Workshop Aug 7 - 8 2019 | Mumbai, India

# **CADP** Certification

Aug 9, 2019 | Mumbai, India



### 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

To register for this tutorial, visit DemandPlanning.net Contact us today at +91 9319340404 / +91 8237046020 or via Email at training(at)demandplanning.net

# **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 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



### Dr. Mark Chockalingam President and Founder of Demand Planning LLC

Dr. Mark Chockalingam is Managing Principal, Demand Planning, LLC. Mark specializes in demand forecasting, Sales and Operations Planning, Customer Planning and supply chain strategy. Mark has helped consulting clients in CPG, Pharmaceuticals, Chemicals and Retail to implement best practices to sharpen complex supply chains and help them be more customer focused. He has worked on highprofile projects with companies such as Abbott, FMC, Procter and Gamble, Au Bon Pain, Teva Pharmaceuticals, Miller SAB, Jack Daniels, Honeywell, PepsiCo etc.

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.

Price INR 36,000 for 2-Day DP Price -INR 55,000 when registering for 2-Day DP + 1-Day Refresher course plus CADP To register for this tutorial, visit DemandPlanning.Net Contact us today at +(91) 9319340404 / +(91) 9319340404 or via Email at training(at)demandplanning.net \*The price does not include service tax

# Workshop Agenda

### DAY ONE

**8:30am** Registration

- 9:00am Welcome & Introduction

#### **9:30am** 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

**10:30am** Coffee break

#### **10:45am** 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
- **I:00pm** Lunch Break

#### **2:00pm** 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
- **3:30pm** Coffee Break

#### **3:45pm** 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

#### **5:00pm** Assignment of Forecasting exercises to participants

### DAY TWO

#### **9:00 am** Modeling special cases of Demand

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

#### II:I5am Coffee break

### II:30am Inventory Management and Demand-driven planning -Strategic Uses of Inventory •Inventory Management Strategy -Ruffering a Hacking a Demakting a Participation of the second strategy

- •Buffering •Hedging •Decoupling •Production Smoothing •Pricing
- •Inventory Categories •Direct materials •Indirect Materials •MRO
  - •Spares
- •Inventory Management Strategies
  - •Engineer to Order •Make to Order •Make to Stock
  - •Postponement•Mass customization

#### I:00pm Lunch Break

#### = 2:30pm Product Portfolio Management

- Impact of Data Volatility on SCM
- Measuring Volatility
- Impact of multiple Extreme Observations on Volatility
- •SKU Segmentation for demand modeling & inventory
- strategies
- •Modeling by exception
- •ABC analysis Classification philosophy
- •Pareto analysis based on dollar usage
- •Item criticality
- •Excess, obsolete and Slow-moving Alignment with product lifecycle
- •Discontinuance and end of life (EOL)
- •Process flow for Segmenting SKUs
- •Example using a three-dimensional matrix; ABC / Volume / Critical / Status; excess, obsolete impact of Segmentation on Cycle Counting and Inventory Accuracy.

#### **– 3:30pm** Coffee Break

# Workshop Agenda

### DAY TWO

#### **4:30pm** 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

# CADP(Certified Analyst in Demand Planning)

### DAY THREE

1.11	<b>9:00am – 10:00am</b> Joint Session -Discuss Exam format ප්
	helpful hints
	<ul> <li>10:00 – 11:00am Review</li> <li>• Review of Online Session</li> <li>• Open Q&amp;A Session</li> </ul>
	<ul> <li>II:00 – I2:00pm Review</li> <li>Review of Practical Probem Solving</li> <li>Open Q&amp;A Session</li> </ul>
	I2:00 – I:30pm Lunch Break & Relax (No discussion with
	intstructors)

#### 1:30 – 5:30pm Exam

- Part 1 Multiple Choice Concepts (2 hrs)
- Part 2 Practical Problem Solving with Calculations (2 hrs)

# About Demand Planning, LLC

Demand Planning, LLC is a consulting boutique comprised of seasoned experts with real-world supply chain experience and subject-matter expertise in demand forecasting, S&OP, customer planning, and supply chain strategy.

We provide process and strategy consulting services to customers across a variety of industries: pharmaceuticals, CPG, high-tech, foods and beverage, quick service restaurants and utilities.

Through our knowledge portal Demand Planning.Net, we offer a full menu of training programs through in-person and online courses in Demand Forecast Modeling, S&OP, industry forecasting, collaborative forecasting using POS data.

Demand Planning.Net, also offers a variety of informational articles and downloadable calculation templates, and a unique Demand Planning discussion forum.

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**Pacific Cycles** Pizza Hut PepsiCo SAB Miller Sappi Fine Paper **Skyworks Solutions** Sunovion **Teva Pharmaceuticals** 



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