



Presents:

Business Forecasting & Planning 2010

# **“Introduction to Demand Forecasting Models & Metrics”**

**Pre-Conference Training Workshop**

February 24, 2010  
Caesar’s Palace, Las Vegas, NV

Presented by Mark Chockalingam Ph.D.

## **You will learn to...**

- Design and develop statistical models**
- Formulate a baseline statistical forecast**
- Reconcile top down forecasts and bottom up forecasts**
- Measure and use forecast errors**

# Forecasting Models & Metrics Overview & Agenda

**D**emand forecasting is the science of accurately forecasting the customer demand for your supply chain as well as for corporate decision making purposes. An accurate demand plan helps you reduce inventory costs and increase customer service levels besides helping the company develop a good financial plan and a profit estimate. When properly implemented and used in the Value Chain planning process, the demand plan helps create a lean and customer centric organization.

In this workshop, you will learn how to develop a baseline forecast using statistical models and leverage demand metrics to improve the quality of such statistical forecasts.

## Who Should Attend?

*Demand Planners & Directors  
Forecast Analysts and Managers  
Director of Value Chain  
Analysts in the Supply Chain  
Inventory and Operations Planners  
Financial Analysts  
Director of Logistics  
Marketing Managers  
Product Managers  
Sales Managers  
Customer Business Managers*

### 1:00PM **Demand Forecasting Overview**

- \* Demand Forecasting Basics
- \* Key Terminology & Concepts
- \* Demand Process
- \* Organization Structure and Culture
- \* Role of the Demand Forecaster

### 1:35PM **Data Maintenance and Analysis for forecasting**

- \* Data Analysis
- \* Volume and Volatility
- \* Central Tendency and measures of Dispersion
- \* Outliers and Missing Data
- \* Structural Changes and Data Shifts in the demand history
- \* Baseline forecasts
- \* Ex-Post Forecasting vs. Ex-Ante Forecasting
- \* Qualities of a Good statistical Forecast

### 2:45PM **Coffee Break**

### 3PM **Modeling and Graphical decomposition**

- \* *Components of Demand: Trend, Seasonality, Cyclical*  
– *Product Life cycle forecasting*
- \* *Time series Averages*
- \* *Exponential Smoothing Models*
- \* *Decomposition Models using Linear Regression*

### 4:30PM **Demand Forecasting Error Metrics**

- \* Importance of Measuring forecast Error:
  - o Forecast Error as a Model Diagnostic
  - o Forecast Error as a performance measure
- \* Definition and Mechanics of alternative forecast Error Metrics
  - a. Mean Absolute Deviation
  - b. Mean Percent Error
  - c. Mean Absolute Percent Error - MAPE
  - d. Mean Squared Error
  - e. Forecast Bias and SKU Mix Error

### 5:30PM **Q&A and Conclusion**

## About The Instructor

**D**r. Mark Chockalingam is Managing Principal, Demand Planning LLC, a Business Process and Strategy Consultancy based in Woburn, MA. Mark has spent most of his career in business forecasting and supply chain analytics. He has specialized in the CPG and the healthcare space and implemented best practices to help supply chains be more customer focused.

He has worked on high profile projects with companies such as Miller SAB, Eastman Kodak, Colgate Palmolive, Procter and Gamble, Abbott Labs, Wyeth, and Teva Pharmaceuticals. Before starting his consulting career, he has held corporate positions of increasing responsibility with Fedex, Schering-Plough and the Gillette company, now a unit of Procter and Gamble.



Bold Strategies | Innovative Forecasting | Accurate Planning

# Business Forecasting and Planning, 2010

The strategic event for leaders in the forecasting and planning community!

There are industries who deal with uncertainty everyday... learn about their approach to business forecasting and take-away these successful planning strategies for your company

Weather the storm...

When you think about it, we're always trying to anticipate or forecast events in most aspects of our daily life. But for businesses and companies this is often much more meaningful than for instance selecting the best choice of clothes in case it rains later...

If you come from a forecasting or planning role, you'll know that there are a number of factors that can influence a forecast and moreover affect its accuracy. Thus, in economic and business times such as these, forecasts are essential, yet errors can be very costly.

Innovative break-throughs in business planning!

We realize that there are a number of industry experts out there, yourself included, who are keen to uncover business practices that wipe out the challenges that are holding you back.

In response we've dedicated our 2 day event to overcoming these common planning frustrations. Moreover, we want to focus on the companies who have adopted new practices that they can share and dig deep into the details of how their approach to forecasting is proving more efficient, more dependant and more accurate despite current market volatility.

We bring the truly inspirational planners in finance, operations and strategy to the forefront, at a place where all the core challenges are confronted...

- \* Global strategic planning practices explored!
- \* Bridge the gap! Achieve complete business collaboration with the forecast
- \* Determining the right KPI's and performance metrics for your business
- \* Dynamic planning! How to manage short & long term planning horizons

And oh-so much more...