

# **Demand Planning and Management**

## **3-day workshop**

### **Intermediate level**

#### **Is this workshop for you?**

- You have been involved in some Demand Planning and Management, but want to know more
- You have a career as a demand planner or manager and want to brush up on your skills
- As a manager from another field, you want to understand the complexities around Demand Planning and Management

#### **Workshop format**

This can be done as an in-house or a public workshop (minimum numbers apply). Participants to bring their laptops for the Excel exercises.

Copies of the slides will be provided to the delegates

#### **Overview of the workshop**

Now more than ever, our planning has to be accurate, and it all starts with the estimation and management of demand. All other decisions hinge on the number that the market requires. Due to Supply Chain complexities and cost pressures, it is absolutely crucial to keep the minimum amount of cash tied up in inventory, while satisfying the customer to the maximum. This workshop will provide you insight into the thinking, and help you gather the best-practice tools and techniques to do this. By understanding the tools available, the obstacles in the process and the outcomes that can be expected, you can stay ahead of the pressure that is part and parcel of the job of being a demand planner or manager.

#### **Objectives of the workshop**

- Understanding the complexities of Demand Planning and Management
- Providing you with the knowledge about Demand Planning and Management
- Introduction to processes to manage demand
- Different methods of forecasting
- Customer collaboration
- Providing a practical experience of using these tools
- A walk through of what demand managers and planners need to know to understand the benefits of a solid demand management and forecasting process, tools and resources required to achieve significant savings on inventory cost while keeping high customer service.
- Discussion around what currently happens in business and the challenges the participants have come across.

## **Workshop outline**

### **Day 1**

#### **INTRODUCTION TO DEMAND PLANNING AND FORECASTING**

- Definition of Demand
- What is Demand Planning?
- What is Forecasting?
- Myths about Forecasting
- Why forecast?
- Relationship of forecasting to planning
- Framework for developing a demand planning process
- Key roles and responsibilities
- Differences in functional needs and business drivers
- Impact of forecasting on decision making
- Role of demand planning in the complete supply chain
- The Bullwhip effect

#### **DEVELOPING AND MANAGING THE FORECASTING PROCESS**

- Process design factors
- Organizational design factors
- Management support and participation
- Functional support and participation
- Top-Down versus bottom-up forecasting philosophies
- Key process considerations
- Indicators of process risk
- Data collection considerations

#### **PRACTICAL EXERCISE – DEMAND PLANNING GAME ROUND 1 (3 hours)**

## **Day 2**

### **KEYS TO SUCCESSFUL FORECASTING PROCESS AND FUNCTION**

- Problem and needs
- Goals and objectives
- Coordination and leadership
- Process management
- Forecast model development
- Forecast development
- Forecast error tracking & analysis
- Communication with participants and users
- Continuous improvement and adaptation

### **SALES & OPERATIONS PLANNING (S&OP)**

- What is S&OP
- Relationship of forecasting to S&OP
- S&OP goals and objectives, input and output
- S&OP Best Practices and obstacles
- S&OP essential ingredients
- S&OP meeting activity
- Executive S&OP
- Case Study – Team workshop and discussion

### **COLLABORATIVE PLANNING, FORECASTING AND PLANNING**

- What is CPFR
- Why do we need it?
- How does it work?
- Ingredients of a successful CPFR process

### **PRACTICAL EXERCISE – DEMAND MANAGEMENT GAME PART 2 (3 hours)**

## Day 3

### **FORECASTING BEST PRACTICES SUMMARY**

- Forecasting process
- Data collection & analysis
- Methods & models
- Software & systems
- Communications
- People

### **FORECASTING MODELS: QUANTITATIVE AND QUALITATIVE**

- Model usage across time series models overview
- Cause and effect models overview
- Subjective assessment models overview
- Steps in data collection, analysis, and model development

### **HISTORICAL AND STATISTICAL FORECASTING**

- Role of statistical analysis
- How to use history
- Interpreting statistical data
- Decomposing history
- Time series statistical analysis
- Statistical forecast issues
- Why using history is not enough?

### **TIME SERIES MODELS (EXCEL Exercise - fitting a trendline)**

- Inherent assumptions
- When time series models work and when they don't
- Time series elements (Trend, Seasonality, Cyclical and Randomness)
- Time series models: Which to apply and when
- Averages
- Exponential smoothing
- Decomposition

### **CAUSE AND EFFECT MODELS (EXCEL Exercise)**

- Regression models
- When to use regression models
- Steps in development
- Key assumptions
- Regression model issues: seasonality, shifts, events, and variable selection

## **MODEL SELECTION**

- Model selection criteria
- Consideration of decisions for which model is developed
- Data collection and analysis
- Data pattern
- Time horizon
- Specification
- Estimation
- Validation
- Ongoing monitoring and update of model performance

## **NEW PRODUCT FORECASTING**

- Level of new product categorization
- New product success rate
- New product forecasting error rates
- New product success factors
- Factors, issues, and considerations in developing new product forecasts
- Sources of information for new product forecasting
- Quantitative and qualitative methods used in new product forecasting
- New product forecasting process

## **PROMOTIONS FORECASTING (EXCEL Exercise)**

- Promotions forecasting error rates
- Factors, issues, and considerations in developing promotions forecasts
- Sources of information for promotions forecasting
- Quantitative and qualitative methods used in promotions forecasting
- Promotions forecasting process

## **FORECASTING PERFORMANCE (EXCEL Exercise)**

- Inherent error & expected error
- Patterns of error: Level of detail, time horizon
- Uses of error measures
- Calculation, pros, and cons of alternative error measures
- Sources of error
- Error analysis, communication, and remediation
- Exception driven forecasting