



Valtitude



presents:

INVENTORY OPTIMIZATION FOR SUPPLY CHAIN PLANNING

Two Day Workshop

Mark Chockalingam Ph. D

Feb 27 - 28 , 2020 | Boston, MA

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INVENTORY OPTIMIZATION FOR SUPPLY CHAIN PLANNING

Workshop Outline

Inventory Optimization for Supply Chain Planning

This program has been developed to communicate industry best practices in the area of inventory management to Supply Chain professionals. This workshop aims to provide the necessary technical background to enable attendees to develop & implement best practices & procedures in materials management into their own business units.

This workshop will holistically present the best practices and explain the concepts and calculations for optimizing your inventory parameters. We preach true inventory optimization - help you to establish the right parameters your process and systems may need to run a lean machine with just optimal inventories to deliver the service and fill rates.

This is a hands-on, practical workshop with many exercises and case studies and excel based work out problems. Every planner and material manager will leave the training hall with a diverse skill set to do their day to day jobs.

Who Should Attend?

1. Production Planners
2. Supply Chain Analysts
3. Director of Supply Chain
4. Director of Value Chain
5. Analysts in the Supply Chain
6. Inventory Planners
7. Operations Planners
8. Financial Analysts
9. Director of Logistics
9. Director of Customer Service



Insightful information on...

- ▀ Purpose of Inventory – Introduction to Inventory Management Principles
- ▀ Toolkit for Materials Management
- ▀ Principles of Inventory Management
- ▀ Inventory Optimization
- ▀ Manage by Exception
- ▀ ABC Classification for Inventory
- ▀ Work-site Inventory Management
- ▀ Techniques Including Kanban
- ▀ Multi-echelon distribution
- ▀ Measurement and KPIs for Inventory Management
- ▀ Forecast Accuracy
- ▀ Min-Max Models

Agenda

DAY ONE

8:30am SCM Process - Demand/Supply planning – strategic Uses of Inventory

- Overview of Demand/supply and MPS Process
- Production Strategies
- Key objectives of supply chain management –
 - Customer demand fulfillment
- S&OP as the key driver of monthly planning process
- Inventory impact on functional Stakeholders
- Why Forecast and Plan?
- The Service – Cost – Balance Model
- Introduction to Demand Planning- What, Why and How?

10:30am Coffee break

10:45am Inventory Management and Demand-driven planning –Strategic Uses of Inventory

- Inventory Categories
 - Direct materials
 - Indirect Materials
 - MRO OEM
 - MRO Industrial
- Inventory Management Strategies
 - Make to Order
 - Make to Stock
 - Build to Order/ Mass Customization
 - Postponement
 - Engineer to Order.
- Purpose of Inventory
 - Buffering
 - Hedging
 - Decoupling

12:30pm Lunch Break

01:30pm Product Segmentation and ABC analysis

- SKU Segmentation for inventory strategies ABC analysis
- Classification philosophy Pareto analysis of SKU's based on dollar usage Frequency of Usage Excess, Obsolete and Slow-moving
- Item Criticality as factor of Sales Service and Lead time
- Frequency of Usage Excess, Obsolete and Slow-moving
- Discontinuance and end of life (EOL) , as appropriate
- Process flow for segmenting sku's using the above techniques
 - Example using a three-dimensional matrix;

ABC / Volume / Critical / Status; excess, obsolete impact of Segmentation on Cycle Counting and Inventory Accuracy.

2:45pm Coffee break

3:00pm Measurement and KPIs Forecast Error, ,

Customer Service and Inventories.

- Service Level measurements
 - Fill-Rate and On-time Delivery
 - Order complete
 - Service Metrics exercise
- Inventory Performance Measures
 - Inventory Accuracy
 - Inventory Turns
 - Days on Hand
- Forecast Accuracy
 - MAD, MAPE, MPE, Root Mean Squared Error
 - Calculation exercise
- Supplier Performance Measures
 - Schedule Adherence
 - Lead Time Adherence
- Relationship between Schedule Adherence, Customer Service and Inventory Availability

04:15pm Digital Supply Chain and its impact on Inventory Management

- Supply Chain Tower & Improved end to end visibility
- AI-driven Dashboards for real-time alerts
- E-commerce and e-inventory management
- Automation in inventory management
- Big data to comb through key SCM triggers



Mark Chockalingam Ph. D.
Founder & President

Dr. Mark Chockalingam is Founder and President, Demand Planning LLC, a Business Process and Strategy Consultancy firm. He has conducted numerous training and strategy facilitation workshops in the US and abroad, and has worked with a variety of clients from Fortune 500 companies such as Wyeth, Miller SAB, FMC, Teva to small and medium size companies such as Au Bon pain, Multy Industries, Ticona- a division of Celanese AG.

Prior to establishing his consulting practice, Mark has held important supply chain positions with several manufacturing companies. He was Director of Market Analysis and Demand Planning for the Gillette Company (now part of P&G), and prior to that he led the Sun care, Foot care and OTC forecasting processes for Schering-Plough Consumer HealthCare.

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.

DAY TWO

08:15am Day one review

08:30am Economic Order Quantity and Purchase Quantity Discounts

- Principles of Inventory management
- Economic Order Quantity
- Derivation of the EOQ
- Determinants of EOQ
- Ordering costs vs. Carrying costs
- Components of Inventory Carrying / Holding costs - capital, storage, obsolescence, handling (breakdown) and their impact
- Estimating Inventory Carrying costs for various industries

Exercise: Deciding to take a Purchase Quantity Discount

10:00 am Coffee break

10:15am Inventory Optimization and Management

- Safety Stock
 - Independent Demand Item Reordering
 - Safety Stock calculations
 - Determinants of Safety Stock – Service Level Agreement, Demand Volatility and Lead Time
 - Effect of Demand Uncertainty in Safety Stock – Different Scenarios
- The perils of variability in Supplier lead time
- Supplier Lead Time Variance
- Effect of Supplier Uncertainty on Safety Stock Calculations

Exercise: Service percent effect on Safety Stock

12:30pm Lunch Break

01:30pm Inventory Optimization and Management- Min Max Models Min-Max Models

- Re-Order Point
- Demand During Lead Time
- Definition of Min level in the Min-Max Model
- Definition of Max level in the Min-Max Model
- Inventory Cycle and Cycle Time
- Time Phased Order Point (TPOP)
- Lifetime Buys and Minimum Buys
- Case Study

Case Exercise: on Safety Stock, Min-Max, and Re order Point.

03:00pm Coffee Break

03:15 pm Work on the Case Exercise above

3:45pm Work-site Inventory Management Techniques

- Challenges and Benefits of improving & maintaining inventory Accuracy
- Periodic review process vs. Perpetual Inventory
- Cycle counting vs. physical Inventory
- Kanban Methodology
- Determining Container Size and Quantity
- Safety stock, Min-Max and DDLT in Kanbans.
- **Exercise:** Kanban Calculation exercise

4.45 pm Exercise Solutions Discussion

Price: **\$1095** | Early-bird price for Boston: **\$995**
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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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