

Managing Supply Chain Inventory

Course Outline

Delivered as part of Monash University's Faculty of Business & Economics, Master of Marketing (Logistics management)

Conducted by GRA staff, the lecture program introduces the key elements of Demand, Inventory and Supply Management

By course end, participants will understand how to plan demand, inventory and supply to meet customer service levels at the lowest cost

SYNOPSIS

This Demand, Inventory and Supply Chain Management Course examines in detail the different techniques employed for planning and managing inventories.

Several practical simulations, role-plays and exercises are employed to provide participants with the base knowledge to apply these concepts within their own organisations.

OBJECTIVES

At the end of this course, participants will understand how to plan demand, inventory and supply to meet customer service levels at the lowest cost.

RESOURCES & REQUIREMENTS

Time commitment – 5-day, 3-day and 1-day course options are available. Lectures, case studies, class discussions of readings and possible site visits form part of the program.

Teaching and learning approach – The program will consist of presentations, group working sessions, case study analyses, an interactive planning and simulation exercise and guest speakers from industry, when appropriate.

Recommended readings – Articles and whitepapers will be provided during the course.

COURSE TOPIC OUTLINE

- ✓ The Fundamentals
- ✓ Methodologies
- ✓ Demand Planning
- ✓ Inventory, Service and Cost Optimisation
- ✓ Supply Planning
- ✓ Performance Management and S&OP
- ✓ Supply Chain Collaboration
- ✓ Planning Processes
- ✓ Systems
- ✓ Simulation and Modelling
- ✓ The Financial Link
- ✓ Implementation and Change

1. The Fundamentals

An introduction to the basic terminology and concepts of supply chain management. The critical success factors for managing inventory, cost and service will be outlined. Key concepts in planning processes such as demand forecasting, inventory management and supply planning will also be covered.

2. Methodologies

Concepts underpinning common inventory management approaches will be introduced, providing participants with an understanding of the techniques available and where they might be successfully employed within their business.

3. Demand Planning

This topic will provide an understanding of best practices in demand planning. Participants will gain an understanding of the business requirement for demand planning and the framework required to create forecasts and an approved business demand plan.

4. Inventory, Service and Cost Optimisation

Participants will gain an understanding of how inventory optimisation methodologies work and will learn in detail the best practices in inventory, service and cost optimisation.

5. Supply Planning

Supply Planning is an introduction to the different supply techniques and applications used to meet supply requirements, including MRP, Closed Loop MRP, MRP II, DRP/DRP II, TPRP, and JIT/TQC. The purchasing function and the importance of vendor management will also be addressed focusing on the aspect of Supplier Planning and Control areas.

6. Performance Management and S&OP

Providing an introduction to the principles behind performance management, this topic also illustrates how S&OP uses inventory and performance management to link and constrain activities within a business. Participants will understand the characteristics of a good set of performance measures and the practical roles and responsibilities within an organisation practicing S&OP.

7. Supply Chain Collaboration

Supply Chain Collaboration will look at the importance of collaboration in managing the supply chain. Focusing on increasing competitive advantage, this topic will look at how customer collaboration improves the demand planning process and how supplier collaboration works to improve the supply plan variability, thus reducing total supply chain costs. Acknowledging that the supply chain crosses both intra-organisational and inter-organisational boundaries, the lesson will explore both internal and external collaboration approaches.

8. Planning Processes

This topic will provide an understanding of how planning processes overlay with organisational structures, and will provide attendees with the ability to critically assess different organisational structure and process ownership models.

9. Systems

The use, selection and implementation of forecasting and replenishment systems including what capabilities you should look for, how a selection process might be structured and what to consider when implementing, will be explored in this topic.

10. Simulation and Modelling

Supply chain modelling will be introduced as a way to provide results with which to make management decisions. Modelling opportunities, applications and techniques – and their associated pros and cons – will be covered.

11. The Financial Link

An explanation of the relationship between financial performance and operations management will be covered in this topic. Participants will be provided with an understanding of how to build a business case to support improvement initiatives.

12. Implementation and Change – Making it Happen

The factors influencing the success of supply chain reform within an organisation will be reviewed in this topic, as will the elements of a successful supply chain reform project and the risks associated with reforming processes.