



SUPPLY CHAIN MANAGEMENT

A Primer — HDMC 22 · Second Semester

SCM is part of the Second Semester curriculum at CDM. This document places an overview of what the module covers.

Supply Chain Management is a discipline that most of us encounter daily — in acquisition decisions, maintenance contracts, revenue procurement, and vendor management. This module provides the framework to navigate these efficiently and effectively.

Capital acquisition in the defence context carries some of the longest procurement timelines of any sector. From the articulation of a capability requirement to the fielding of a system, 8 to 12 years is not unusual. That span is not entirely reducible — technical evaluation, trials, and commercial negotiations take the time they take. But there are substantial delays that are due to avoidable causes: weak drafting of SQRs, ambiguous contract terms, and process gaps that compound at each stage. Knowing and understanding where the time goes is the first step to recovering some of it.

+ WHY THIS MATTERS

Inventory stock-outs, delayed acquisitions, contract disputes, GeM non-compliance, obsolete spares are problems that surface at every level. The SCM module covers the underlying mechanics: inventory control, acquisition procedures, DPM 2025, GeM, Life Cycle Costing, and the technologies beginning to reshape how defence supply chains operate. The objective is to recognise where the system is failing and what to do about it.

Inadequate understanding of SCM and insufficient awareness of processes and policies in capital acquisition, can cost years and capability. In revenue procurement, it costs accuracy and accountability. The knowledge of how supply chains function and how capital assets are acquired is a prerequisite for our future assignments where we would either advise the decision makers or take the decisions ourselves.



MODULE STRUCTURE

Major Segments

The module is sequenced across major segments, interspersed with Guest Lectures, the Beer Game simulation, formulating of SQRs and Experience Sharing sessions.

I SUPPLY CHAIN MANAGEMENT

Foundations & Strategic Framework

- Overview of SCM — the distinction between logistics and SCM, and its implications at senior levels
- Strategic Fit: matching supply chain design to the mission requirement
- Supply Chain Drivers: Facilities, Inventory, Transportation, Information, Sourcing, Pricing
- The Bullwhip Effect — demand distortion, information gaps, and systemic disruption

II MATERIAL MANAGEMENT

Inventory Control & Optimisation

- Selective Inventory Control — ABC, VED, FSN analysis
- Economic Order Quantity (EOQ) — ordering cost versus holding cost
- Decoupling points and strategic buffers — stock placement for operational flexibility

+ ON INVENTORY

Holding too much costs money and creates obsolescence risk. Holding too little creates stock-outs. The balance is governed by demand predictability, lead time, and the quality of information flowing back from the point of consumption. In defence supply chains, a stock-out at a forward ammunition dump or a critical spares node is a mission interrupt. Hoarding against uncertainty is equally problematic: it ties up working capital, occupies storage capacity, and slows indent fulfilment. One way to think about inventory is as a substitute for information. The less reliably you know what is needed and when, the more you are forced to hold. The question then is not just how much to stock, but how to design feedback loops that reduce the need for guesswork.



III

CONTEMPORARY ISSUES

Life Cycle Costing, 3PL & Emerging Technology

- **Life Cycle Costing (LCC):** acquisition cost is typically 30% of total platform cost; the 70% sustainment tail is where most financial decisions are made poorly
- **3PL & Outsourcing:** role and limits of third-party logistics in the defence context
- Additive Manufacturing, Digital Twins, AI-driven demand forecasting — current applications, not future concepts
- Commercial benchmarks — Walmart, Dell, Amazon — and the lessons applicable to defence supply chain design

Acquisition cost is only the opening entry. The sustainment cost over a platform's service life — spares, AMCs, upgrades — is where the real exposure lies. Life Cycle Costing connects the two.

IV

ACQUISITION MANAGEMENT

DAP 2026 — Capability in Faster Timeframes

- Knowing the acquisition process is essential — it shapes every capability decision, budget submission, and vendor interaction
- **DAP 2020** was the governing framework for previous HDMC courses and remains the operative reference until the new procedure is formally promulgated
- **DAP 2026:** the draft has been circulated and its direction is clear — outcome-orientation over process-compliance, reduced timelines, and a stronger emphasis on indigenous capability. Sessions will be based on the promulgated version; where that is pending, the draft provides sufficient basis for substantive engagement
- Acquisition categories — IDDM, Buy Indian, Buy & Make, Make — and the rationale behind the preference order
- **SQR Formulation:** the SQR Drafting Exercise is built around this. A well-drafted SQR compresses the cycle. A poorly drafted one extends it by years
- Contract Management: LD, Force Majeure, Integrity Pact, PBC, INCO Terms



◆ FORMULATING THE IDEAL SQR

An over-specified SQR is likely to produce a single eligible vendor, a non-competitive price, and years of delay. An under-specified SQR produces equipment that does not meet operational need. Getting this right is the single highest-leverage intervention an officer can make in the acquisition cycle.

Atmanirbharta — Supply Chain Sovereignty

Dependence on foreign single-source vendors carries strategic risk that goes beyond cost. Export control regimes, sanctions, and supply disruptions are instruments of statecraft. DAP 2026 attempts at providing solutions through various preference categories, offset frameworks, and integration of iDEX and domestic startups into the acquisition pipeline.

V

REVENUE PROCUREMENT

DPM 2025 & Government e-Marketplace

- **DPM 2025:** replaces DPM 2009 after sixteen years. The changes are substantive — revised delegation of financial powers, updated AMC frameworks, and refined outsourcing provisions. Where DPM 2009 reflected a paper-driven procurement environment, DPM 2025 is structured around digital systems. The major changes and improvements over the earlier manual will be covered in detail
- **Government e-Marketplace (GeM):** mandatory for all listed items. Sessions will focus on the must-knows for middle and senior leadership — not system operation, but governance, accountability, and the decision points that carry professional risk

📌 ON GEM — THE AMAZONIZATION OF PUBLIC PROCUREMENT

GeM has fundamentally changed the character of public procurement — moving it toward an e-commerce model where price discovery, vendor selection, and order placement happen with a complete digital trail. Understanding the business flow in GeM is essential. Features such as Seek Clarification Mail, Incident Reporting, and the bid evaluation mechanism are the points where decisions are made and where accountability is established.



How the Module is Delivered

BEER GAME

SQR DRAFTING

GUEST
LECTURES

EXPERIENCE
SHARING

◆ The Beer Game

First developed at MIT's Sloan School of Management, the Beer Game has been run in business and management schools worldwide for over five decades — and it remains on curricula because nothing else makes the same point as effectively. It is a supply chain simulation.

◆ SQR Drafting Exercise

Participants draft an SQR for a realistic system. Common failure modes — gold-plating, unverifiable parameters, missing interoperability clauses — are identified and corrected in real time. The exercise is the most direct application of acquisition theory in the module.

◆ Guest Lectures

Practitioners from MoD, industry, and the services ecosystem share their insights. The emphasis is on ground-level perspective — how decisions are made, what the constraints look like from inside the process.

◆ Experience Sharing

Facilitated peer sessions. Participants share their experiences in acquisition, revenue procurement, supply chain impediments etc from across services. The format is structured to draw out lessons,

THE JOURNEY

A Final Note

The SCM module runs across approximately thirty sessions in the Second Semester. The sequence is deliberate: SCM foundations and inventory management establish the conceptual base; contemporary issues — LCC, 3PL, and emerging technology — build analytical breadth; capital acquisition and revenue procurement then apply that base to the two primary procurement channels in defence. The Beer Game and SQR exercise anchor theory to practice.

Participants will be equipped with a working understanding of the Defence Acquisition procedure as it stands under DAP 2026, the changes brought by



DPM 2025, and the practical implications of GeM for day-to-day procurement. Case studies — drawn from real decisions, anonymised — are used throughout, including cases where process failure resulted in audit observations, capability gaps, or litigation.

This module does not operate in isolation. It intersects with other modules like Financial Management, Systems Analysis and Strategic Management covered at CDM during the course.

That, in essence, is the module.

"A modern supply chain is not a support function. It is the entire arc — from concept to consumption."

Sd/-
(RR Mohindru)
Gp Capt
HoD SCM
Faculty of Resource Management
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