

aractech

Global Learning for Operational Leaders



PROCUREMENT AND SUPPLY CHAIN MANAGEMENT | PSCM-021

Omnichannel Supply Chain & E-Commerce Fulfillment

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Course content

Why Attend

Customers increasingly expect a consistent purchasing and delivery experience across online stores, marketplaces, mobile applications, physical retail locations, and business-to-business channels. Meeting these expectations requires supply chains capable of coordinating inventory, orders, warehouses, transportation, and returns across multiple sales and fulfillment channels.

Traditional distribution models often struggle with fragmented inventory visibility, competing channel priorities, inaccurate stock availability, expensive last-mile delivery, and inefficient returns management. Omnichannel fulfillment addresses these challenges by connecting demand, inventory, order processing, and logistics operations within an integrated supply chain strategy.

Course Methodology

- The programme combines instructor-led sessions, omnichannel supply chain case studies, fulfillment process mapping, inventory planning exercises, logistics simulations, system integration discussions, and performance improvement workshops.
- Participants work with realistic e-commerce and retail distribution scenarios to evaluate fulfillment network alternatives, design order routing workflows, analyze inventory requirements, and improve delivery and returns processes. Practical exercises emphasize the operational and financial trade-offs involved in omnichannel fulfillment decisions.

Course Objectives

- Explain the structure and operating principles of omnichannel supply chains
- Evaluate fulfillment strategies for e-commerce, marketplaces, and physical retail channels
- Design integrated order management and fulfillment workflows
- Improve inventory visibility, allocation, and replenishment across multiple channels
- Assess warehouse and distribution center requirements for omnichannel operations
- Compare centralized, decentralized, and store-based fulfillment models

Target Audience

- This course is suitable for:
- Supply chain managers and directors

- E-commerce operations managers
- Logistics and distribution managers

Course outline

Detailed course outline

Day-by-day outline for Omnichannel Supply Chain & E-Commerce Fulfillment.

Day 1 - Omnichannel Supply Chain Strategy and Fulfillment Network Design

- Understanding the differences between single-channel, multichannel, cross-channel, and omnichannel supply chain operating models
- Mapping customer journeys and fulfillment requirements across online stores, marketplaces, mobile commerce, physical retail, and business-to-business channels
- Evaluating centralized distribution centers, regional fulfillment facilities, micro-fulfillment centers, and store-based fulfillment models
- Comparing ship-from-warehouse, ship-from-store, click-and-collect, buy-online-pick-up-in-store (BOPIS), and direct-to-customer delivery strategies
- Assessing fulfillment network design using service coverage, delivery speed, operating costs, inventory positioning, and capacity constraints
- Practical workshop: Designing an omnichannel fulfillment network for a retailer operating physical stores and multiple digital sales channels

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Day 2 - Inventory Management, Demand Planning and Order Orchestration

- Establishing unified inventory visibility across warehouses, retail stores, marketplaces, and third-party logistics providers
- Applying demand forecasting, inventory segmentation, safety stock, and replenishment planning across multiple fulfillment channels
- Designing inventory allocation rules that balance online demand, store availability, service priorities, and profitability
- Understanding order management systems (OMS) and their role in order capture, inventory availability, allocation, routing, and exception handling
- Developing order routing logic based on inventory location, delivery commitments, fulfillment capacity, transportation costs, and customer preferences
- Practical exercise: Optimizing inventory allocation and order routing decisions across a network of stores and distribution centers

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Day 3 - E-Commerce Warehousing and Fulfillment Operations

- Designing fulfillment workflows covering order release, picking, packing, quality checks, labeling, dispatch, and shipment confirmation
- Comparing discrete picking, batch picking, zone picking, and wave picking for different order volumes and product characteristics
- Improving warehouse slotting, storage strategies, picking routes, labor productivity, and order accuracy
- Evaluating automation technologies including barcode scanning, RFID, sortation systems, goods-to-person solutions, and autonomous mobile robots
- Integrating warehouse management systems (WMS) with e-commerce platforms, ERP systems, and order management applications
- Case study: Redesigning an e-commerce fulfillment center to improve throughput, reduce picking errors, and support seasonal demand peaks

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Day 4 - Last-Mile Delivery, Customer Experience and Reverse Logistics

- Evaluating parcel carriers, delivery service providers, third-party logistics partners, and alternative last-mile delivery models
- Designing delivery service options covering standard delivery, express delivery, scheduled delivery, pickup points, and store collection
- Analyzing transportation costs, delivery density, failed deliveries, route efficiency, and service-level trade-offs
- Improving customer communication through shipment visibility, tracking information, proactive notifications, and exception management
- Developing reverse logistics processes covering return requests, collection, inspection, restocking, refurbishment, and product disposition
- Practical workshop: Evaluating last-mile delivery and returns scenarios to improve customer satisfaction while reducing fulfillment cost-to-serve

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Day 5 - Fulfillment Technology, Performance Analytics and Continuous Improvement

- Understanding the integration of OMS, WMS, TMS, ERP, inventory platforms, and e-commerce applications within an omnichannel technology architecture
- Applying supply chain analytics to monitor order processing, fulfillment lead times, inventory availability, delivery performance, and returns
- Developing performance indicators including perfect order rate, on-time-in-full delivery, order accuracy, inventory turnover, cost per order, and return processing time
- Assessing the use of artificial intelligence, predictive analytics, and automation in demand planning, inventory optimization, order routing, and fulfillment operations
- Establishing fulfillment governance, supplier performance management, service-level agreements, operational risk controls, and continuous improvement priorities
- Capstone exercise: Developing an Omnichannel Supply Chain and E-Commerce Fulfillment Improvement Plan covering network design, inventory strategy, order orchestration, warehouse operations, last-mile delivery, technology integration, and performance KPIs

Seminar dates

Available seminar dates

Live dates and pricing for Omnichannel Supply Chain & E-Commerce Fulfillment generated from the course details page.

Date	Location	Format	Fee
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