



PROCUREMENT AND SUPPLY CHAIN MANAGEMENT

Omnichannel Supply Chain & E-Commerce Fulfillment

Course code: PSCM-021

SPARK TRAINING

Professional training courses for leaders, specialists, and organizations seeking practical capability development.

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— Workshop Overview

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. The Omnichannel Supply Chain & E-Commerce Fulfillment course provides a practical understanding of designing, operating, and improving fulfillment networks that support both digital commerce and physical distribution. Participants explore omnichannel supply chain models, distributed inventory management, order management systems, warehouse operations, fulfillment technology, last-mile delivery, reverse logistics, and performance analytics. The programme emphasizes operational decision-making, cost-to-serve analysis, customer experience, and scalable fulfillment strategies that balance service quality, speed, inventory availability, and profitability.

Why Attend

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

Who Should Attend

Supply chain managers and directors
E-commerce operations managers
Logistics and distribution managers
Warehouse and fulfillment center managers
Retail operations and omnichannel managers
Inventory planning and demand forecasting professionals

— Learning 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
- Evaluate last-mile delivery strategies and logistics cost drivers

- Develop efficient returns management and reverse logistics processes
- Understand the role of OMS, WMS, TMS, ERP, and e-commerce platform integration
- Apply demand forecasting and supply chain analytics to fulfillment planning
- Establish KPIs for service levels, operational efficiency, and cost-to-serve
- Develop an omnichannel fulfillment improvement roadmap

Course Outline

**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

**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

**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

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

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

— Upcoming Classroom Dates

Schedule available on request. Contact SPARK Training for current dates, locations, and fees.

— Certificate and Registration

Participants who attend and complete the full programme receive a SPARK Training Certificate of Completion. For registration, in-house delivery, or availability questions, contact info@sparktraining.eu or +31 85 115 0004.