

Process Design, Logistics & Global Supply Chain Management

How value chains are analysed, connected and managed across the world — LO3, LO4 & LO5

INTRODUCTION

Value is created across borders, not inside one firm

- ◆ A value chain is every activity that creates value — from raw materials to delivery.
- ◆ Apple designs in the USA, sources chips from Taiwan, displays from South Korea, assembles in China and India.
- ◆ Today companies compete as entire supply chains, not as single firms.

5
countries

to build one iPhone

LEARNING OBJECTIVES

Three outcomes, one connected story

- ◆ LO3 — Apply process analysis and evaluation tools to improve value chain performance.
- ◆ LO4 — Explain how procurement, production and distribution logistics integrate across the chain.
- ◆ LO5 — Analyse the evolution of global supply chains and evaluate the trends reshaping them.

LO 3
• 4 • 5

covered in this lecture

Draw every step, then attack the delays

- ◆ A visual map of inputs, activities, decision points and outputs.
- ◆ Emirates passenger journey: booking → check-in → security → boarding → flight → baggage → feedback.
- ◆ Dubai International maps passenger flow to cut peak-season waiting; Amazon maps every warehouse step to enable same-day delivery.

8
steps

in one passenger journey — each one can
be improved

Separate what adds value from what doesn't

- ◆ Every activity is either value-added (assembly, packaging) or waste (waiting, storage).
- ◆ In smartphone manufacturing, waiting for a machine adds zero value — Lean removes it.
- ◆ Jebel Ali Free Zone companies use Lean to cut warehouse delays.

0
value

is added while a product waits

Map the sequence, then compare with the best

- ◆ Flowcharts show the operation sequence — supplier → warehouse → factory → distributor → retailer → customer — and expose duplicate work.
- ◆ Benchmarking compares your delivery time, inventory turnover and satisfaction with industry leaders.
- ◆ A UAE supermarket benchmarks against Carrefour UAE; Toyota benchmarks quality worldwide.



Six numbers that tell you if the chain is healthy

- ◆ Delivery time · inventory turnover · order accuracy · customer satisfaction · cost per unit · defect rate.
- ◆ Noon tracks delivery success, order completion and customer ratings daily.
- ◆ KPIs turn 'we feel slow' into 'delivery time rose 12% — fix the sorting step'.

6 KPIs

every value chain manager should watch

Sometimes you improve — sometimes you redesign

- ◆ SWOT for a UAE logistics firm: strength = location; weakness = high costs; opportunity = e-commerce; threat = global competition.
- ◆ Business Process Reengineering redesigns workflows entirely instead of patching them.
- ◆ Banks moved from branches to digital banking; UAE Pass digitized government services and cut the paperwork.



YOUR TURN · LO3

Map the food-delivery value chain

- ◆ Draw Talabat's chain from restaurant partner to your door.
- ◆ Mark the value-added activities, the waste, and the bottlenecks.
- ◆ Propose the improvements you would make first — and defend them.



PART 2 · LO4

Right product, place, time, quantity, cost, condition

- ◆ Logistics plans, implements and controls the movement and storage of goods, services and information.
- ◆ It connects every stage: supplier → procurement → production → distribution → retailer → customer.
- ◆ Without logistics, the entire value chain fails.

6 Rights

the definition of logistics success

Getting materials from suppliers to the factory

- ◆ Supplier selection, purchasing, transport, receiving, warehousing, inventory control.
- ◆ Emirates Flight Catering imports ingredients from many countries so meals are never missing.
- ◆ Tesla sources batteries, lithium and electronics globally — facing supplier delays, currency swings and political risk.



Moving materials inside the factory

- ◆ Material handling, machine scheduling, production planning, quality control.
- ◆ A water plant flows: raw material → bottle production → filling → packaging → storage.
- ◆ Almarai's UAE operations schedule production to meet supermarket demand with minimum waste.



Finished goods out, returns back in

- ◆ Distribution: warehousing, transport, order processing, retail delivery — Noon Express runs warehouse → sorting → vehicle → customer.
- ◆ Amazon Prime adds automated warehouses, AI routing and drone trials.
- ◆ Reverse logistics handles returns, repairs and recycling — Apple collects old iPhones for materials recovery.

2
ways

goods flow out — and back

DISCUSSION · LO4

Location + Jebel Ali + airport + free zones + tech

- ◆ DP World integrates ports, warehouses, shipping, customs, road transport and digital tracking into one ecosystem.
- ◆ Logistics is cross-functional — it links marketing, finance, procurement, operations, sales and service.
- ◆ Coordination creates economies of scale, scope and value (Emirates Flight Catering, Majid Al Futtaim, Amazon Prime).



Coordinating partners across many countries

- ◆ Raw materials → components → factory → warehouse → distributor → retailer → customer, spread across the globe.
- ◆ Firms globalize for lower costs, skilled labour, new markets, tax advantages and resources.
- ◆ Majid Al Futtaim imports, stores in UAE distribution centres, and supplies Carrefour across the Middle East.



COVID-19 rewrote the rulebook

- ◆ Global risks: political instability, trade wars, disasters, pandemics, cyber attacks, climate, exchange rates.
- ◆ Factory shutdowns in China during COVID-19 disrupted manufacturing worldwide.
- ◆ The answer is resilience: multiple suppliers, safety stock, nearshoring and regional warehouses.

1 Shutdown

in China stopped factories worldwide

Digital, green, resilient, automated, instant

- ◆ Digital chains (AI, IoT, blockchain — DP World tracks containers with AI) and automation (Amazon Robotics).
- ◆ Sustainability: green logistics, EVs and Masdar-backed Net Zero initiatives in the UAE.
- ◆ E-commerce growth drives last-mile logistics for Noon, Amazon UAE, Talabat and Careem — while DP World operates in 70+ countries.

70+

countries in DP World's network

COMPANIES NO LONGER COMPETE — SUPPLY CHAINS DO

For the tutorial: draw the value chain of Noon UAE, mark where value is created, and suggest three strategies a UAE retailer could use to build supply chain resilience after a global disruption.

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