**Logistics and Supply Chain Management**

This unit will allow learners to gain knowledge and understanding of why supply chains are important to business organisations. The unit will allow learners to gain an understanding of how to resolve strategic supply chain management issues and to consider the impact of technology on supply chains.

**Indicative Content**

**1. Understand theories of supply chain management and their contribution to achieving business objectives**

- Theories: Porter’s Five Forces, intensity of rivalry, power of customers, power of suppliers, threat of market entry and threat of substitutes, Kraljic’s product and service positioning, Impacts on business organisations, Supply structure and design, Supplier selection, Supply and Demand Economic theory, Lean Production, for example Just in Time, EOQ, etc.

- Strategic business objectives:

The strategic wheel, 1 - Creation of list of offered products, 2 - Identification of customer needs and market requirements. 3 - Estimation of the degree of meeting market expectations by the existing offer, 4 - Definition of existing knowledge, competences, experience and infrastructure, 5 - Determine the limit for supply chain upstream flows, 6 - Determine the ability of the company to carry out tasks that occur after delivery, 7 - Define the limit for downstream flows, 8 - Selection of an optimal range of products to be offered, 9 - Establishment of goals for development of the necessary skills, experience and infrastructure. Basic approaches to strategic supply, Interrelationships between each of the strategic elements of an organisation, Financial impacts and financial objectives, HR / Personnel considerations.

* Supply and corporate strategies, for example supply chain strategy supports and facilitates: Corporate strategy, Information sharing, Translation of competitive priorities into supply function objectives, Translation of supply function objectives into supply chain practices.

**2. Understand the role of logistics in supply chain management**

* Role of logistics: Organisation of the storage and distribution of goods, Ensure the right products are delivered to the right location on time at an appropriate and agreed price, Co-ordination of transportation, stock control and warehousing, Monitoring of the flow of goods.
* Performance Measurement: Measurement of costs, Cost benefit analysis, Price versus cost, purchasing activities contributing to total cost of ownership, Management of purchasing function, Delivery Administration,
* Point of origin to consumption – managing movement of goods, time and storage of inventory, customer needs and consumer satisfaction.
* Cost Measurement: Service costs, Communication costs, Price negotiations, Quality costs.
* Inter-business relationships Management: Development of supply chain and relationship management, Strategic Relationship Positioning Model (SRPM).

**3. Understand the role of information technology in supply chain management**

* Information technology and communication: Electronic Data Interchange (EDI), Development of Open Systems Integration (OSI), Internet technologies.
* Electronic exchanges: Marketplace in which goods and services are traded – global, connecting buyers and sellers, auctions, VPNs, one to many, many to many, web marketplace, vortices, butterfly hubs, Inventory tracking, Economic Order Quantities, Automated inventory ordering.
* Environmental issues: Suppliers and new product development (NPD), Current issues, Competitive advantage, Increasing product complexity, Reduced product life cycles, Managing technological change, Resources and knowledge required to innovate, Benefits of involvement.
* Industry framework, four main drivers: Demand variation or demand profile, Market mediation costs, Product lifecycle, Relevance of the cost of assets to the total cost.