



PD03

Transport Operations

Standards

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PD03

Transport Operations

Unit purpose and aim

This unit presents the key generic aspects of transport operations. It provides the basis for professionals in the transport industry to understand the principles of effective, safe and legal movement of goods and people by the principal modes in a national and international context. The unit covers the nature of transport, an appreciation of its supply and demand characteristics and the different ways in which the transport product can be delivered effectively and efficiently.

Elements

- PD03-1 The Nature of Transport
- PD03-2 Regulation of Transport
- PD03-3 Operation of Transport
- PD03-4 Resourcing Transport

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Element PD03-1

The Nature of Transport

Learning Outcomes

The learner will:

- 1.1. Understand the relationship between transport and economic development.
- 1.2. Understand the role of government in transport.
- 1.3. Understand the nature of supply and demand in transport.
- 1.4. Understand the product of transport and how it is supplied by the different modes.
- 1.5. Understand the concept of market segmentation in the transport of goods and people.
- 1.6. Know the characteristics of the different modes of transport used for the carriage of goods and people.
- 1.7. Understand the level of integration and the interchange requirements needed to produce a “seamless journey”.

Assessment Criteria

The learner can:

- 1.1.1. Diagnose strategies to promote economic development through the provision of transport.
- 1.2.1. Develop strategies that take advantage of the opportunities provided by government policy.
- 1.3.1. Specify options for the delivery of the transport product in a competitive environment.
- 1.4.1. Relate modal characteristics to specific service demands to optimise effectiveness.
- 1.5.1. Analyse the transport market for goods and people to develop services better suited to the target market.
- 1.6.1. Analyse the suitability of the different modes of transport in a given set of circumstances.
- 1.7.1. Critically analyse the barriers faced by goods and people with a view to improving the transport experience.

Indicative Content

Transport and development	Evolution of society; economic development; land use
Government involvement	Ensuring adequate supply; strategic requirement; maintain communications; foreign exchange and trade.
Nature of transport supply and demand	Systematic; indivisible; dispersed; instantly perishable; derived demand.
The transport product	The concept of safe arrival in accordance with any published conditions.
Market segmentation	By standard variables: SEG, income, etc.; By journey purpose: business, leisure, personal, commuting; By type of load: bulk, dangerous, IAL, high value, etc.; By type of movement: single shipment, multi-drop, multi-part.
Modes of transport for the carriage of goods and people	Road; rail; maritime; IWT; air; pipeline.
Transport integration	Within modes; between modes; with land use; with other government functions.
The seamless journey	Components of a journey; generalised cost; requirements for seamless interchange.

Element PD03-2

Regulation of Transport

Learning Outcomes

The learner will:

- 2.1. Understand the structure and ownership of the transport industry.
- 2.2. Understand the concept of economic regulation and de-regulation of the transport industry.
- 2.3. Understand the principles of quality regulation and the requirements placed on the operator.
- 2.4. Understand the effect of laws regarding restrictive practices and the enforcement of competition.
- 2.5. Understand the nature and role of national and international regulatory bodies, trade associations, user groups and pressure groups which impact on the transport industry.

Assessment Criteria

The learner can:

- 2.1.1. Assess the impact of different ownership strategies on the provision and management of services.
- 2.2.1. Assess the impact of different regulatory regimes on the provision and management of services.
- 2.3.1. Assess the qualitative licensing and regulatory control mechanisms relevant to each of the major modes of transport.
- 2.4.1. Critically assess current procedures to prevent the organisation from taking action that might be deemed anti-competitive.
- 2.5.1. Make appropriate responses to pressure from different external agencies.

Indicative Content

Industry structure and ownership	Size and number of undertakings. Public sector; private sector; mixed. Own-account; hire and reward.
Economic regulation	Purpose, quantity control; quality control; franchising.
Principles of quality regulation	Financial standing; good repute; professional competence; maintenance; environmental issues; systems for legal compliance.
Competition	Anti-competitive agreements; cartels; conferences; monopolies. Competition Act 1998; anti-competitive actions; abuse of dominant position. Office of Fair Trading; Competition Commission; Restrictive Trade Practices Court.
Regulatory bodies, trade associations, user and pressure groups	International regulatory bodies: IMO; ICAO; ECE; EU. National authorities: DfT; CAA; ORR; Lloyd's; VOSA; DSA. Professional bodies. Trade bodies: IATA; RHA; FTA; ATOC; CPT (UK); UIC; IRU; UIF; UITP; ICS. User groups: statutory; voluntary. Pressure groups: national/international; ad hoc.

Element PD03-3

Operation of Transport

Learning Outcomes

The learner will:

3.1. Understand the different types of transport services.

3.2. Understand how to use resources to achieve efficient, effective and legal operations.

3.3. Know how to use routeing and scheduling to maximise effectiveness and efficiency of operations.

3.4. Understand the techniques used for the costing and pricing of transport operations.

3.5. Understand the different types of international transport operations and the legal requirements under different trade agreements and conventions.

Assessment Criteria

The learner can:

3.1.1. Assess the most appropriate type of service to meet the demand in a given set of circumstances.

3.2.1. Prepare plans to meet specific long and short term transport demand.

3.3.1. Assess the potential sensitivity of different customer groups to service changes.

3.3.2. Estimate the business, cultural and diversity impacts of service changes for different customer groups.

3.4.1. Prepare quotations for providing specific transport services under different market conditions.

3.5.1. Plan an international operation including the relevant documentation and legal compliance.

Indicative Content

Transport services	Scheduled services: regular dedicated; regular open-access. Predictably variable services: seasonal factors. Non-scheduled services: spot movements; on-demand services.
Resource utilisation	Maximum use within limits imposed by maintenance and crew hours. Load factor; yield management.
Operations planning factors	Demand; duration; destination; distance.
Routeing and scheduling	Routeing: viable route; permit requirements; staging points; weather; congestion; timing. Scheduling: paths and slots; delivery windows; crew hours; timed restrictions on movement; border crossing; congestion; contractual issues.
Costing and pricing	Costing: direct/indirect costs; fixed/variable costs; cost ratio; joint and common costs; escapability and opportunity cost. Pricing: ROCE; cost-plus; market price; marginal cost; price discrimination; subsidy.
International transport	Transit; through-transport; third-country traffic; cabotage.
International trade	Protectionism; free trade agreements; customs unions; documentation requirements.
International conventions	International Air Services Transit Agreement; International Air Transport Agreement; Warsaw and Montreal Conventions; Hague and Hamburg Rules; ADR; ATP; TIR; CMR; CIM.
Legal requirements	Permits; Community Authorisation; own-account documents; carnets; Customs.

Element PD03-4

Resourcing Transport

Learning Outcomes

The learner will:

4.1. Understand the concept of outsourcing and how it should be managed.

4.2. Understand asset replacement strategies and decisions.

4.3. Understand investment appraisal methods.

Assessment Criteria

The learner can:

4.1.1. Draw up a specification for outsourcing a specific transport activity.

4.2.1. Prepare a financial case for a transport-related asset replacement or new procurement.

4.3.1. Carry out an appraisal of the various financial options.

Indicative Content

Outsourcing	Advantages; contra-indications. Control, monitoring.
Replacement policies	Economic life; cascading; betterment. Outright purchase; hire purchase; finance lease; operating lease; contract hire.
Investment appraisal	Pay-back; ARR; NPV.