

Professional Diploma *in Procurement and Supply* *CIPS Level 6*



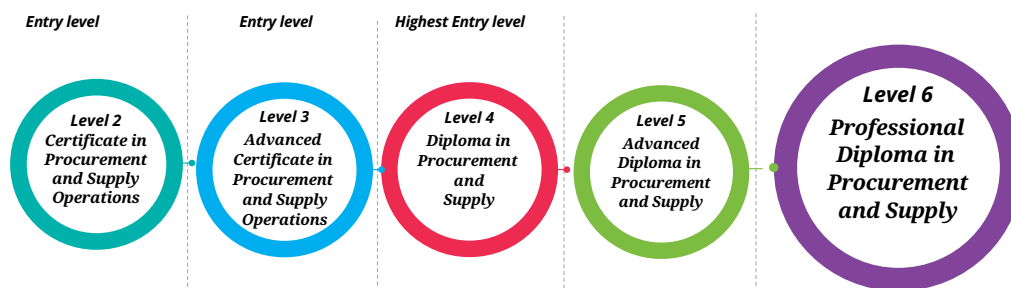
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Your qualification

CIPS qualifications are regulated internationally to ensure we offer a recognised, professional standard in procurement and supply. CIPS Level 6* Professional Diploma in Procurement and Supply is a vocationally related professional qualification. Formal recognition is included within the regulatory frameworks of an increasing number of countries such as the UK (England, Wales and Northern Ireland), UAE (including Dubai) and Africa (including Zambia). CIPS members can have the confidence in our regulated qualifications, which reliably indicate the standard of knowledge, skills and understanding that you, as a learner, are required to demonstrate.

The CIPS Level 6 Professional Diploma in Procurement and Supply is for those who want to specialise in a specific occupation, occupational area or technical role. It represents the final level of qualification required by those who are working towards MCIPS Chartered Procurement and Supply Professional, which is recognised worldwide as the professional standard for procurement and supply practitioners.

Building on the knowledge and skills learned at the CIPS Level 5 Advanced Diploma in Procurement and Supply. This qualification supports individuals who are working at or aspiring to the Professional level of the CIPS Global Standard for Procurement and Supply. It is designed for experienced members of the profession who are expected to lead procurement teams within an organisation and influence the board to adopt leading-edge procurement strategies thereby establishing best practice.



Who is it for?

For those who are successful in completing the CIPS Level 5 Advanced Diploma in Procurement and Supply; this represents the final level of CIPS qualifications for those working towards MCIPS Chartered Procurement and Supply Professional.

What will I learn?

Building on the knowledge and skills learned at the CIPS Level 5 Advanced Diploma in Procurement and Supply, you will be able to demonstrate strategic knowledge and leadership skills and find solutions to complex problems. It is designed to develop transferable workplace skills such as excellent communication and the ability to work in and lead a team. Employers have identified that the ability to think strategically and lead and influence policy and thinking are essential for progression. You will gain an understanding of different perspectives and theories and will be able to critically analyse, interpret and evaluate complex information, concepts and ideas.

Entry requirements

You will need to have achieved CIPS Level 5 Advanced Diploma in Procurement and Supply.

About our exams and your study commitments

Objective Response exam format (OR)

These questions allow you to select a response from a list of possible answers. You will find these types of exams across all our qualifications levels and they are marked by computer and then moderated by CIPS examiners.

Total exam time

All the modules in CIPS qualifications are assessed by an examination.

Strategic Ethical Leadership

[L6M1]

Module purpose

On completion of this module, learners will be able to critically evaluate leadership skills and behaviours required to achieve organisational and stakeholder commitment to strategic improvements and change and also appreciate ethical practices, standards and regulations that impact on the procurement and supply function.

Module aim(s)

Globalisation and the ever changing markets in which organisations operate require effective leaders who are able to think and act in a strategic manner. This is particularly true for those who lead the procurement and supply function ensuring that it makes a positive contribution to overall organisational success. Strategic Leadership is the ability to make and communicate decisions that enhance the prospects for the organisation's long-term success while maintaining long-term financial stability. This module is designed for those professionals who are expected to deliver effective and efficient procurement and supply. It emphasises the leadership skills and behaviours required for the achievement of the objectives and improvements sought by the organisation.

Learning outcomes, assessment criteria and indicative content

- 1.0** Understand and apply leadership skills and behaviours that are appropriate for strategically improving the procurement and supply chain function
- 1.1** Critically evaluate the differences between leadership and management
 - Defining leadership
 - The role of a leader and the activity of leadership
 - The importance of leadership
 - The differences between management and leadership
 - Situational leadership
 - The continuum of leadership behaviour
 - The forces in deciding the type of leadership
 - Transformational and inspirational leadership
- 1.2** Critically analyse approaches to leadership for improving procurement and supply chain management
 - The qualities or traits approach to leadership
 - The functional or group approach, including action-centred leadership
 - Styles of leadership including the authoritarian or autocratic, democratic and laissez-faire styles
 - Contingency theories for leadership such as path-goal theory
- 2.0** Understand and apply communication planning techniques and analyse their influence on individuals involved in the supply chain
- 2.1** Evaluate influencing styles that can be used in the effective leadership of a supply chain
 - Implementing a vision of improved procurement and supply chain management
 - Models for managing in four different directions
 - The relevance of managing upwards and across to achieve desired results for improved supply chain management
 - The merits of escalation as a means of influencing
 - A range of influencing styles for cross functional leadership both within and outside the bounds of formal teams
- 2.2** Compare leadership techniques that can be used to influence personnel involved in a supply chain
 - Assessing the readiness of followers or groups
 - Leaders attitudes to people
 - Management by objectives and establishing KPIs
 - Measures of effectiveness
 - Self-development
 - Emotional intelligence
- 2.3** Evaluate how to create a communication plan to influence personnel in the supply chain
 - Stakeholder analysis including primary, secondary and key stakeholder
 - How to obtain buy in to supply chain strategies from stakeholders
 - Perspectives on stakeholder mapping
 - How the use of the intranet and Internet websites for publishing information
- 3.0** Understand and apply methods to overcome leadership challenges faced by procurement and supply chain managers
- 3.1** Contrast the sources of power and how they can be used to overcome common challenges faced by procurement and supply chain leaders
 - Perspectives on individual power
 - Processual, institutional and organisational levels of power
 - Perspectives on organisational power
 - The balance between order and flexibility
- 3.2** Analyse how equality and diversity issues relating to the supply chain can be used to improve strategic effectiveness
 - Defining diversity, equality and inclusion
 - The benefits of diversity in organisations
 - The impact of discrimination, harassment and victimisation
 - Developing and implementing policies to enhance diversity
- 3.3** Evaluate methods of change management that can be used to develop the supply chain
 - The nature of organisational change
 - Planned organisational change
 - Dealing with resistance to change
 - Effective change management
- 3.4** Assess methods for resolving conflict with internal and external stakeholders to support change in the supply chain
 - Contingency models of organisations
 - The functions of the informal organisation
 - The positive and negative outcomes of conflict
 - Strategies for resolving conflict
 - Incremental and transformational change
- 4.0** Understand and apply ethical practices, standards and regulations that impact on the procurement and supply function
- 4.1** Examine ethical practices and standards that apply to global supply chains
 - Ethical codes of practice
 - Due diligence on suppliers
 - Contractual clauses
 - Leading ethical practices and standards
 - Developing a culture of commitment to achieve ethical codes and practices
 - Initiatives and policies created by leading bodies such as:
 - CIPS Code of Conduct
 - Traidcraft
 - The Walk Free Foundation
 - UN
 - ILO
- 4.2** Assess regulations that impact on the ethical employment of people
 - Regulations such as:
 - Discrimination, equality and diversity
 - Employee redundancy and dismissal
 - Working time and staff payment
 - International labour codes
 - Health and safety at work
 - Minimum/fair wages

Global Commercial Strategy [L6M2]

Module purpose

On completion of this module, learners will be able to evaluate the concept of commercial global strategy and assess the challenges and main elements associated with the formulation and implementation of a commercial strategy and understand the impact of finance on strategic decision making.

Module aim(s)

The global agenda is becoming more and more prevalent in organisational success. As organisations increase overseas development, investment and sourcing, business leaders are to formulate and implement global commercial strategies. This module is designed for professional procurement and supply chain leaders and takes as its focus the development; configuration and implementation of global commercial strategy to enable such leaders to help organisations achieve competitive advantage.

Learning outcomes, assessment criteria and indicative content

- 1.0 Understand and apply the concept of commercial global strategy in organisations**
- 1.1 Evaluate characteristics of global strategic decisions in organisations**
- The characteristics of strategic decisions
 - The vocabulary of strategy
 - Strategic versus operational management
 - The strategic position
 - Strategic choices
 - Strategy in action
- 2.0 Understand and apply tools and techniques to address the challenges of global supply chains**
- 2.1 Assess methods to analyse the global supply chain**
- STEELED
 - The use of benchmarking
 - Determining measurable outcomes of success
 - Devising metrics of performance
 - The macro environment and the STEELED (social, technical, economic, environmental, legislative, ethical and demographic) framework
 - Competitive forces- the five forces framework
 - The industry and product life cycle
 - Cycles of competition
- 2.2 Evaluate the regulatory influences on the global supply chain**
- Licensing of imports and exports
 - Controls through import and export tariffs and duties
 - Price and service controls exercised by industry regulators and international bodies
 - The regulations that impact on the employment of people, such as:
 - Discrimination, equality and diversity
 - Redundancy and dismissal
 - Working time and payment
 - Health and safety
 - Minimum/fair wages
 - Modern slavery
- 3.0 Understand strategy formulation and implementation**
- 3.1 Evaluate how corporate and business strategic decisions impact on supply chains**
- Strategic directions: market penetration, consolidation, product development and market development
 - Diversification: related and unrelated
 - Portfolio matrices: growth/share, directional policy and parenting matrix
 - Drivers of internationalisation
 - Global, regional and local dimensions to strategic choice
- 3.2 Evaluate how organisational strategy can be implemented in supply chains**
- Methods of pursuing strategies: organic, mergers and acquisitions or strategic alliances
 - Strategy evaluation: suitability, acceptability and feasibility
 - Managing intended and realised strategy
 - Strategy development in uncertain and complex conditions
- 3.3 Analyse the relationship between strategy and corporate, business and functional structures in organisations**
- Structural types: simple, functional, multidivisional, matrix and transnational
 - Aligning the supply chain to the organisational structure
 - Centralised, devolved and hybrid structures
 - Forming structures on lead buyers networks
- 3.4 Analyse the management of resources to support the development and implementation of strategy**
- People as a resource
 - Managing information
 - The role of technology
 - Managing finance: the financial aspects of value creation
 - Funding strategy development and implementation
- 4.0 Understand financial aspects that affect procurement and supply**
- 4.1 Assess how costs and finance can impact on supply chains**
- The financial objectives of different organisations (e.g. value for money, maximising shareholder wealth)
 - The costs of materials, labour and overheads
 - Funding working capital and credit insurance
 - Project funding
 - Medium and long term financing options
 - Corporate financing decisions in investment, finance and dividends
- 4.2 Evaluate methods for managing the volatility of currencies in supply chains**
- Fixed and floating exchange rates
 - Demand and supply factors in foreign exchange and the reasons for exchange rate volatility
 - Spot, forward and derivative instruments in foreign exchange
 - Services provided by the banking sector in foreign exchange
- 4.3 Analyse methods for managing the volatility of commodities in supply chains**
- Demand and supply factors in commodities
 - The differentiation of commodities
 - Soft and hard commodity markets
 - Speculation in commodity markets
 - The use of spot, forward, futures and hedging in the buying and selling of commodities
 - The use of a Contract for Difference (CFD) in the buying and selling of commodities

Global Strategic Supply Chain Management [L6M3]

Module purpose

On completion of this module, learners will be able to evaluate the influence of strategic supply chain management and assess the methods which are available to measure, improve and optimise supply chain performance.

Module aim(s)

One of the significant impacts of globalisation has been a marked increase in the complexity of the supply chain and associated networks. These challenges require procurement and supply leaders to develop and lead modern day supply chains and understand the vital role that they have in the overall success of corporate and business strategy. This module is designed for such professionals as it focuses on the development, implementation, monitoring and optimisation of global supply chains and on the strategic influence of such chains on the achievement of competitive advantage.

Learning outcomes, assessment criteria and indicative content

1.0 Understand how strategic supply chain management can support corporate business strategy

- 1.1 Assess the relationship between functional, business and corporate levels of strategy**
- The relationship between the supply chain, business and corporate levels of strategy
 - The impact of supply chain management on business and corporate performance
 - The impact on profitability of the supply chain
 - Supply chain risks and their impact on business and corporate performance

1.2 Evaluate the contribution of strategic supply chain management

- Creating sources of competitive advantage such as cost, improved quality, time to market, product and service differentiation
- Enterprise profit optimisation
- The use of outsourcing to achieve competitive advantage
- Offshoring and sourcing from low cost countries
- Quality improvement methodologies in the supply chain

1.3 Evaluate the impact of market change on strategic supply chain management

- STEELED (social, technical, economic, environmental, legislative, ethical and demographic) factors and their impact and risks on supply chains
- Distinguishing between disruptive and incremental change
- Changing markets and market volatility
- The impact of globalisation on supply chains
- Assess the supply chain risks of achieving expected international minimum standards.

1.4 Contrast approaches to develop and implement strategic relationship management

- Models of strategic alignment
- Customer and supplier relationship management
- Methodologies for the implementation of strategic relationship management

2.0 Understand and apply supply chain design tools and techniques

■ Compare approaches to segmentation

- Approaches to segmenting customers and suppliers
- Managing the product and service mix
- Creating strategies for the different tiers of a supply chain

2.2 Assess approaches to developing networked supply chains

- Supply chain flows and the use of supply chain and value stream
- Tiering in supply chains and the use of network sourcing
- Identifying value added activities and the value chain in supply chain networks
- Network optimisation modelling
- The use of reverse logistics in supply chain networks

2.3 Assess the role of distribution systems

- Channel design
- The impact of e-commerce on distribution networks
- Logistics flow path design
- Physical network configuration
- Challenges in transportation management
- Locations of distribution centres
- Positioning in local, regional and global chains

2.4 Evaluate ways to achieve lean and agile supply chains

- Comparing lean and agile supply chains by variety and volume
- Implementing lean supply and lean thinking
- Matching supply with demand
- The impact of promotions and causal events on demand
- Improving demand planning accuracy and the use of statistical forecasting
- Using technology to communicate data in supply chains

3.0 Understand and apply techniques to achieve effective strategic supply chain management

3.1 Evaluate approaches to developing and implementing supply chain collaboration

- Supply chain evolution from transactional information sharing to collaborative approaches in supply chain management
- Applying PADI (Pragmatic/Performance, Administrative, Divergent/Development and Integration) frameworks for collaboration
- Creating collaborative relationships with customers and suppliers
- The use of shared services in supply chains
- Data integration in supply chains

3.2 Evaluate approaches to change management when working with stakeholders

- Communicating plans with customers, suppliers senior management and other organisational functions
- Gauging resources for strategic supply chain management
- The role of the change agent
- Gauging the acceptance of strategic change

3.3 Analyse approaches to measuring supply chain performance

- Measuring processes and the use of Key Performance Indicators (KPIs) in supply chain management
- Measure of organisational, functional, team and individual performance
- The use of surveys to obtain feedback
- Applying balanced scorecards in the supply chain

3.4 Analyse how the development of knowledge and skills can help achieve effective strategic supply chain management

- The concept of knowledge management within the organisation and with suppliers
- Developing procurement and supply chain competences
- Training and development to improve knowledge and skills within the organisation and with suppliers
- Approaches to measurement, analysis, improvement and control to develop knowledge and skills

4.0 Understand and apply methods to measure, improve and optimise supply chain performance

4.1 Evaluate the impact of the supply chain on corporate performance

- Ensuring added value outcomes
- Timely reporting of data to senior management and stakeholders
- Matching supply with demand

4.2 Assess methods to measure supply chain performance

- KPIs
- The use of technology to communicate supply chain data
- Systems integration strategies
- Measurement of safety, quality, costs and deliverables
- The use of benchmarking
- The development and application of balanced scorecards for supply chain performance

4.3 Assess methods to improve and optimise supply chain performance

- Number of operating facilities and their locations
- Number of suppliers
- Flow of items through the supply chain network
- Network Optimisation Models (NOM)
- Risk identification and management
- Collaborative Planning, Forecasting and Replenishment (CPFR)
- Business Process Reengineering (BPR)

4.4 Assess tools and techniques that are available to help the organisation to achieve strategic fit

- Understand customer and supply chain uncertainty:
 - Customer need for each targeted segment and associated uncertainty
 - Define desired cost and service requirements
 - Identify the unpredictability of demand, supply, disruption and delay that supply chain must deal with
- Understand the supply chain capabilities:
 - What is the supply chain designed to do well?
 - What does the supply chain struggle to achieve?
- Achieving strategic fit:
 - Restructure supply chain to support competitive strategy
 - Change competitive strategy to exploit supply chain design
- Cost-responsiveness frontier
- The responsiveness spectrum
- The zone of strategic fit

4.5 Assess the challenges to achieving and maintaining strategic fit

- Increasing product variety and shrinking life cycles
- Globalisation and increasing uncertainty
- Fragmentation and increased complexity of the supply chain
- Changing technology and the business environment
- The environment and sustainability

Future Strategic Challenges for the Profession

[L6M4]

Module purpose

On completion of this module, learners will be able to evaluate the changing needs and requirements for the procurement and supply function and assess the future challenges for the profession.

Module aim(s)

The volatile global environment poses a threat to traditional concepts of international trade and presents strategic challenges to the procurement and supply function and profession. Strategic procurement and supply leaders require knowledge of the present challenges for their function and profession, and prepare themselves for the future strategic challenges that they will undoubtedly be faced with. This module is designed to challenge procurement and supply leaders to look ahead and to consider the future strategic challenges for them and their profession.

Learning outcomes, assessment criteria and indicative content

1.0 Understand the changing needs and requirements for procurement and supply

1.1 Assess what the future strategic procurement and supply function will look like

- Alignment with the organisation – internally, vertically and horizontally
- Recognise and exploit supply chain opportunities
- New approaches and requirements such as:
 - Agility
 - Flexibility
 - Legality
- Dealing with complexity - Supply Network Strategies
 - Interpreting the current approach to procurement
 - Formulating objectives on the supply side
 - Determine the basic network strategy
 - Calibrating the strategy
 - Restructuring the supply network
- Proactive planning and design of supply networks – anticipate, respond and adapt
- Risk vs. resilient supply chains and networks

1.2 Contrast the future skills and expectations of strategic procurement and supply leaders

- Switching focus from internal operational to external customer interface
- Functional knowledge
- Interpersonal skills
- General management and strategic skills – appreciate and promote the strategic value of procurement and supply
- Internal and external relationship management
- Ethical and sustainable management and leadership – environmental issues and challenges

1.3 Contrast the influence of emerging business and markets on the procurement and supply function

- Volatile global environment – threatens traditional concepts of international trade
- Wider influence on market identification, development and creation
- Future risks and challenges

2.0 Understand the future challenges for the procurement and supply profession

■ Evaluate the emerging role and influence of innovation and technology on the profession

- Disruptive influence on traditional operations
- Organisational uptake and leveraging opportunity
- Automation and changing roles for the profession
- Opportunities that arise and associated skills sets and challenges
- The profession driving the agenda to realise value-adding benefits and competitive edge

2.2 Assess the changing boundaries and shape of the profession

- Stretch and blurring of boundaries between traditional organisational disciplines
- New ways to achieve competitive advantage through the supply chain
- Interdisciplinary working and knowledge
- Growing influence of the profession
- Collaborative and supportive – maintaining the standard
- Advisors and guardians of the profession

2.3 Evaluate future challenges for the profession

- The increased use of common business language across the organisation
- Develop a greater understanding of other business functions
- Develop and promote a greater understanding of the profession within other business functions
- Broaden professional reach to add value where others cannot
- Embed good practice through collaboration with other professions
- Cross-skilling those from other disciplines

Strategic Programme Leadership [L6M5]

Module purpose

On completion of this module learners will be able to assess contracting requirements and approaches to the leadership of major strategic programmes, and evaluate the role that organisational culture has to play on achieving overall success.

Module aim(s)

Major programmes are a key element in any organisational strategy, hence the successful leadership of them is a significant contributor to overall success. This module is designed for those procurement and supply professionals who will develop and lead the implementation and monitoring of contracts from the strategic standpoint requiring a practical knowledge of the associated issues and approaches to programme control.

Learning outcomes, assessment criteria and indicative content

1.0 Understand contracting for programmes

1.1 Compare contracting options for programmes

- Client coordinated approaches to major projects
- Engineering, procurement and construction (EPC)/ design and build forms of contract
- Management contracting and construction management
- Design, build, operate and ownership forms of contract
- Public and private sector partnerships

1.2 Evaluate contract forms for programmes

- The role of institutes and professional bodies in developing contract forms:
 - The New Engineering Contract (NEC) core and optional clauses
 - International Federation of Consulting Engineers (FIDIC) contract forms
 - Institution of Mechanical Engineers (IMechE) contract forms
 - Joint Contracts Tribunal (JCT) contract forms
 - CIPS model forms of contract
- Comparisons of main contractual terms and schedules

1.3 Assess the use of pricing mechanisms for programmes

- Fixed lump sum pricing
- Activity schedule pricing
- Bills of quantity
- Target costing methods and risk and reward pricing mechanisms
- Cost reimbursable contracts

1.4 Contrast methods of investment appraisal for programmes

- Purpose of investment appraisal
- Payback analysis
- Average rate of return
- Discounted cash flow
- The choice of discount factor
- Calculating net present values
- Calculating the internal rates of return
- The strengths and weaknesses of different methods of investment appraisal

2.0 Understand programme leadership approaches

2.1 Assess approaches to strategic cost management for programmes

- Fixed and variable pricing methods
- Budgetary control and variance analysis
- Value engineering
- Consortium based procurement
- The use of open book costing and cost transparency

2.2 Analyse the use of financial and management information on the performance of programmes

- Estimating budgets for projects
- Measurement, monitoring control and improvement
- Project tracking and control mechanisms
- Controlling variations, claims/compensation events
- Implementing remedial actions

2.3 Analyse the impact of programme performance on the supply chain

- Consequential losses resulting from default
- Assessment of damages
- Contractual warranties and conditions
- Specific performance
- Termination clauses

2.4 Assess the implications of programme closure on the supply chain

- Obtaining client acceptance
- Installing deliverables
- Conducting project audits
- Knowledge management
- Communicating the review, evaluation and learning

3.0 Understand the role of culture on achieving programme success

3.1 Critically assess the concept of organisational culture

- The meaning of organisational culture
- The ingredients of culture
- Identifying culture
 - Levels of culture
 - Cultural web
- The four types of culture
 - Power culture
 - Task culture
 - Role culture
 - Person culture

3.2 Analyse the influence of national culture on programme success

- Cultural similarities and differences
- Language, religion, social, laws, politics, education systems, values and attitudes

3.3 Analyse tools and techniques which support cultural change

- Ignoring the culture
- Managing around the culture
- Changing behaviours
- Education vs. persuasion
- Coercion to change attitudes
- Recruitment policy, selection, promotion and reward
- Redundancy policy and alter workforce composition

Commercial Data Management

[L6M7]

Module purpose

On completion of this module, learners will be able to assess the concept of big data and evaluate the impact of data integrity and cyber security on the procurement and supply function.

Module aim(s)

Until recently big data was seen as a technical issue that had to be addressed; however, organisations now view it as a business opportunity that can significantly contribute to competitive advantage and are now exploiting big data in all of its forms to discover facts that they did not know before. Given this propensity for data and the associated gathering and storage activity, supply chain cyber security is now a key requirement. This module is designed for procurement and supply leaders who require a clear knowledge of the concept of big data and of the impact of data integrity and cyber security.

Learning outcomes, assessment criteria and indicative content

1.0 Understand the concept of big data in the global supply chain

1.1 Evaluate the term big data and the historic rise of its importance to the procurement and supply function

- Transit from technical problem to business opportunity:
 - Increasing data volumes
 - Scalability crisis
 - Data storage capacity increases
 - CPU capacity, speed and intelligence
 - Falling cost of IT
- The 3Vs
 - Volume
 - Velocity
 - Variety

1.2 Evaluate the need for big data and the diversity of data sources and types

- Require large volumes of highly detailed data
- Use of Business Intelligence (BI) and analytics
- Driving agility and innovation with big data
- Sources of data:
 - Sensors
 - Devices
 - Third parties
 - Web applications
 - Social media
- Types of data:
 - Real time vs. delayed
 - Unstructured (text and human language) vs. semi structured (XML, RSS feeds etc.)
 - Audio, video, other devices
 - Multi vs. single dimension
 - Streaming data

■ Understand data integrity and its impact on procurement and supply

■ Evaluate the requirement for integrity and confidentiality of data

- Data integrity vs. data security
- Legal aspects such as:
 - The UK Data Protection Act
 - General Data Protection Regulation 2016 (GDPR)
 - EU Data Protection Directive
 - Responsible data handling
 - Non-disclosure agreements (NDA)
 - Intellectual property rights (IPR)
- Information assurance and risk management for individuals and organisations
- Physical integrity vs. logical integrity

2.2 Assess the implications of data disruption on the organisation

- Data-enabled business models
- Data resilience strategies
- Disruption tolerance networks
- System redundancy

2.3 Evaluate international laws and standards which govern data integrity and security

- International laws such as:
 - UK Data Protection Act
 - Data Privacy Day (Council of Europe)
- International standards such as:
 - ISO/PAS 28000:2007 (Supply Chain Standards)
 - ISO/IEC 27001:2013 and ISO/IEC 27002:2013 (Manage and protect information)
 - The Trusted Computing Group
 - The Payment Card Industry Data Security Standard

3.■ Understand the impact of cyber security on procurement and supply

3.1 Evaluate the term cyber security and its implications

- Data security vs. data integrity
- Supply Chain Cyber Security (SCCS)
- Drivers for SCCS such as:
 - Cyber-terrorism
 - Malware
 - Data theft and the advanced persistent threat (APT)
 - Illegal access and changes to data
 - Vulnerabilities in software applications and networks discovered and exploited by malicious hackers
 - Counterfeit computer hardware
- Typical activities for minimising SCCS risks such as:
 - Buying only from trusted vendors
 - Disconnecting critical machines from outside networks
 - Educating users on the threats and protective measures they can take

3.2 Assess data security technologies and their usage in the supply chain

- Create completely secure system using a combination of software and hardware-based security
- Software solutions:
 - Encrypt data to protect it from theft
 - Hacker could corrupt the data in order to make it unrecoverable, making the system unusable
- Hardware solutions:
 - Can prevent read and write access to data and offer very strong protection against tampering and unauthorised access
 - Protects the operating system image and file system privileges from being tampered
- Use strict and secure system administration policies:
 - Backups
 - Data masking
 - Data erasure

Innovation in Procurement and Supply [L6M8]

Module purpose

On completion of this module, learners will be able to evaluate techniques for supplier development and innovation in procurement and supply and appraise the environmental factors which should be considered when applying such methods.

Module aim(s)

In order to support organisational success procurement and supply has a significant role to play in influencing strategic suppliers to adopt innovative approaches and to continue to develop. Professional procurement and supply leaders are therefore expected to identify areas which offer the opportunity to improve and innovate and to lead and implement the associated processes. This module is designed for procurement and supply leaders who require a clear knowledge of the tools and techniques which are available to them to achieve improvement and innovation as well as an appreciation of the environmental factors which affect such initiatives.

Learning outcomes, assessment criteria and indicative content

1.0 Understand techniques for supplier development

1.1 Assess cross functional working to achieve improvements in the supply chain

- Cross functional involvement in the development of specifications and requirements
- Simultaneous (concurrent) engineering
- Product and process design

1.2 Evaluate techniques to promote the development of innovation in procurement and supply

- Collaboration with suppliers and customers to promote improvements in innovation
- Early supplier involvement
- The role of innovation councils
- Supplier forums and associations
- The use of technology transfer
- The use of data analytics to assist planning, forecasting, control and decision making
- The use of integration tools in systems technology

1.3 Contrast the developments in technology that can be applied to promote improvements in supply chains

- Forms of e-procurement
- E-catalogues
- E-sourcing
- E-auctions
- P2P (purchase to pay) systems
- Data integrity and integration between organisations in a supply chain
- XML (extensible markup language) and the use of application programming interfaces (APIs) and other integration tools
- Developments in technology such as:
 - Cloud computing
 - Open source software
 - Mobile telecommunications
 - Remote working
 - Convergence of technology platforms

1.4 Evaluate the use of relationship assessment for supplier development

- The use of joint performance appraisal systems
- The use of relationship assessment methodologies
- The use of balanced scorecards

2.0 Understand methods to achieve procurement and supply improvement and innovation

2.1 Evaluate where technology can be used to improve procurement and supply

- Areas such as:
 - Expenditure control
 - Data analytics and capture
 - Systems integration with suppliers and supply chains
 - Organisational systems integration to improve senior management and stakeholder knowledge and information flow
 - Artificial Intelligence (AI) and predictive analysis

2.2 Evaluate tools and techniques which are available to improve procurement and supply

- Tools such as:
 - Total quality approaches
 - Statistical analysis
 - Just-in-Time (JIT)
 - Lean thinking and lean supply
 - Business Process Re-engineering (BPR)
 - ERP
 - Databases
- The use of business continuity planning to mitigate supply chain interruption

2.3 Assess methods to incentivise improvement and innovation

- Bidding
- Selection
- Contract award
- Contract management
- Setting examples and maintaining standards

3.0 Understand the environmental factors which affect supply chain improvement and innovation

3.1 Assess approaches to environmentally sensitive design

- Lifecycle analysis
- Design for disassembly
- Use environmentally friendly materials
- ISO 14001 – Environmental Standards
- ISO 20400 – Sustainable Procurement Standard

3.2 Assess the impact of green procurement on improvement and innovation

- Impact on strategic policy and planning
- Sustainable procurement
 - Low carbon
 - Low waste
 - Water efficient
 - Respect biodiversity
 - International targets and agreements

Supply Network Design [L6M9]

Module purpose

On completion of this module, learners will be able to evaluate the strategic nature, influence and contribution of supply network design and operations to overall business strategy and assess the strategic value of resource planning and control.

Module aim(s)

Every organisation is part of a wider interconnected network of other businesses and organisations; this is termed the supply network. At a strategic level the design and leadership of such networks is crucial to the effectiveness and efficiency of the associated supply chains, it is the operations processes which form a fundamental element of an organisation's strategic advantage. If materials and/or information are to flow smoothly through the supply network and add value as a result, effective resource planning and control are essential to organisational success. This module is designed for procurement and supply leaders who require knowledge and understanding of the concept of the strategic supply network, its configuration and influence and be able to assess the impact of operational strategy and resource planning and control.

Learning outcomes, assessment criteria and indicative content

1.0 Understand the strategic nature and influence of supply network design

1.1 Assess the meaning of supply network design and the influence that it has on the organisation

- What is supply network design
- Supply network terminology and structures
- Supply network vs. supply chain
- Where are operations located in the supply network – logistical impact
- What influence does capacity and resources have on the supply network
- Value adding and competitive advantage

1.2 Evaluate how a strategic supply chain network should be configured

- Influence of the internet – ‘disintermediation’
- The value net and four players - suppliers, customers, competitors and complementors
- Decisions such as:
 - Make or buy
 - Insource or outsource
 - Vertical integration
 - Outsourcing and offshoring

1.3 Assess the influence of capacity on strategic supply chain design

- Optimum capacity
 - Large vs. small capacity – advantages and disadvantages
 - The timing of capacity change
 - Capacity increments:
 - Capacity leading and lagging strategies
 - Inventory ‘smoothing’
 - Break even analysis for capacity expansion
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2.0 Understand operations strategy and its contribution to overall business success

2.1 Assess the meaning of operations strategy and the impact that it has on the organisation

- What is operations strategy
- How to identify if an organisation has an operations strategy
- Is the operations strategy relevant and aligned to the overall business strategy
- Does the operations strategy align with market requirements and available resources
- The contribution of operations strategy to competitive advantage and added value

2.2 Evaluate the key elements of an operations strategy

- Should include key elements such as:
 - A clear vision and objectives
 - The 4 stages model of operations – internal neutrality, external neutrality, internally supportive and externally supportive
 - Performance objectives – quality, speed, dependability, flexibility and cost
 - Reconcile strategic decisions to objectives
 - capacity and resources vs. timescales and outputs

2.3 Assess the role of improvement in operations strategy

- Continuous improvement
 - Drivers for effectiveness and efficiency
 - Improving operations through trade-offs between performance objectives
 - Trade-offs and the efficient frontier
 - Improving operational effectiveness by overcoming trade-offs
-

3.■ Assess the strategic value of resource planning and control

3.1 Evaluate the concept of strategic resource planning and control

- What is resource planning and control
- Influences on resource planning such as:
 - Translating customer need into operational delivery
 - Customer expectation and management
 - Forecasting, capacity, resources, priorities, scheduling, monitoring, control
 - Information and data gathering and management

3.2 Assess the key elements of a resource strategic planning and control system

- Core mechanics of the process such as:
 - Loading
 - Prioritisation and sequencing
 - Scheduling
 - Monitoring and control
- Decision mechanism:
 - Planning and control staff
 - Planning and control information system
- Customer interface
- Supply interface
- Other business functions

3.3 Contrast methods of monitoring and controlling the strategic operation

- Degree of difficulty in controlling operations
- Consider methods of control such as:
 - Push and pull
 - Theory of constraints (TOC) and drum (bottleneck), buffer stock and rope
 - MRP and MRP II
 - Web-integrated and supply network ERP

Global Logistics Strategy [L6M10]

Module purpose

On completion of this module, learners will be able to assess the strategic logistical implications of globalisation and evaluate global governance of the supply chain and the concept of reverse logistics.

Module aim(s)

Globalisation generates significant opportunities as well as increased risks for organisations. This means that global logistics strategy, the flow of resources and information between a business or source and the consumer is regarded as a key element of organisational success. Personnel responsible for leading and developing global logistics strategy are seen as significant contributors to competitive advantage and overall business success. This module is designed for procurement and supply leaders who are responsible for global logistics strategy and who require knowledge and understanding of the associated challenges, governance and requirements for successful strategic implementation.

Learning outcomes, assessment criteria and indicative content

1.0 Understand the strategic logistical implications of globalisation

1.1 Evaluate the logistics challenges that globalisation presents

- Consequences for inventory handling and transport such as:
 - Centralised vs. regionalised inventory holdings
 - International logistics practices – storage and handling practices
 - Extended transportation pipelines and time to market – obsolescence and inventory holding costs
- Global consolidation
 - Economies of scale and batching
 - Price and currency fluctuation
 - Multiple freight modes and cost
- Location analysis
 - Trade-offs between responsiveness to local markets and economies of scale

1.2 Assess the structure of a global strategic logistics and supply chain network

- Layering and tiering
 - Information flow and coordination
 - 3 and 4PL
 - Influence of Original Equipment Manufacturers (OEM)
 - Time horizons – preparation, finalisation, shipment and delivery
- Individual plants
 - Changing role of distribution centres
 - Flexibility to respond to local markets
 - Response to governmental incentives – adjusting taxes, incentives and infrastructure to favour selection
- Reconfiguration processes
 - Changing the global pipeline
 - Local vs. global postponed manufacturing

1.3 Assess the strategic logistical risks of globalisation and the associated responses

- Supply chain volatility:
 - Geopolitical threats
 - Transportation and/or pipeline breakdowns
 - Security threats
- Responses such as:
 - Inventory policies and levels
 - Transport network redesign
 - Sole vs. global trading arrangements
 - Contingency planning and risk protocols

2.0 Understand global governance of the supply chain

2.1 Contrast the strategic influences on globalised supply chain governance

- Geographical spread and supply chain/network complexity
- Coordination between units and elements of the supply chain/network
- Embedded teams vs. virtual centralisation
- 'Decentralised centralisation' - central reporting and working but not centrally co-located
- Incorporating new regions into global governance
- The flow of goods vs. the flow of ownership

2.2 Assess the impact of international legislation on the globalised supply chain

- The role of international courts in deciding precedence
- Which legal system is generally accepted by all parties – multiple countries passed through during the course of the trade
- Which court has jurisdiction over form of contract, disputes, underperformance etc. – exporter, importer or third country
- Legal considerations in global markets, shipment, insurance, handling, clearance, payment and other related matters

3.0 Understand the concept of reverse logistics and its impact on global logistics strategy

3.1 Assess the concept and requirements of reverse logistics

- What is reverse logistics
 - Waste reduction
 - Point of consumption back to point of origin
- Why is the concept becoming more influential:
 - Product returns
 - Repairs and maintenance
 - Reuse
 - End of life returns and recycling or dismantling

3.2 Assess the strategic factors which influence reverse logistics

- Government policy and legislation
- Economic considerations
 - Increasing landfill costs
 - Increasing cost of disposal vs. profit from recoverable manufacturing
- Environmental considerations
 - Triple bottom line and sustainability
 - Corporate Social Responsibility
 - Green logistics
- Buying sets of services
 - E.g. include maintenance contract covering repairs and parts – return of broken products and take back at life-end

3.3 Contrast factors that influence strategic reverse logistics

- External factors such as:
 - Legislation
 - Customer demand
 - Incentives
- Internal factors such as:
 - Environmental concerns
 - Strategic cost/benefits
 - Volume and quality returns
 - Resource
 - Integration and coordination

3.4 Compare factors which affect the implementation of reverse logistics strategy

- No infrastructure and insufficient resources
- Difficult to forecast flow and composition
- Not a priority
- Driven by legislation and not identified business value
- Regarded as an additional cost
- Unpopular as regarded as a sign of failure

