

Module code	SCAI_PBUS7E	NQF level	7
Credit value	20	Study duration	12 weeks

# Supply Chain Analytics and Innovations

## Module description

This module covers a wide range of subjects with the key aim of enabling students to critically evaluate different supply chain analytics tools. The increasing role of innovation in the design and operation of modern supply chains will be analysed. The module will also explore the sustainability of some of the supply chain design and operations. Students will be equipped with practical knowledge of using different open-source analytical software for supply chain practitioners. This module will consider how decisions can be made using these analytical tools to innovate within the field of supply chain management.

The module was developed based on the research conducted on various supply chain analytical tools and innovation that has helped to shape the delivery of supply chain activities such as R-programme, Business modelling and technological issues.

## This module aims to:

- explore key supply chain functions
- demonstrate an understanding of various types of supply chain analytics
- critically analyses the increasing role of innovation in the context of supply chain as well as its sustainability
- analyse and apply analytics in business and operations management contexts

## Learning outcomes

- Critically assess different supply chain analytics tools
- Evaluate the diverse innovations in supply chains
- Apply and demonstrate supply chain analytics programming skills for innovative solutions
- Critically analyse the contributions of supply chain analytics and innovation tools in building sustainable business

## Syllabus

- Supply Chain Analytics: A game changer
- Fundamental issues in Supply Chain
- Supply Chain System Analysis and Design (Predictive, Descriptive and Prescriptive)
- Sales and Operations Planning (SOP)
- Inventory and Supply Planning
- Uses of 'R' programming in Supply Chain
- Business Process Modelling
- Emerging Technologies/Innovation in Supply Chain (such as Industry 4.0, 3D Printing etc.)
- Digital Supply Chain
- Business Process Re-Engineering (BPR)
- Strategic Alliance and Innovation
- Supply Chain Sustainability Innovation and Reverse Logistics

## Learning and Teaching Methods

This module will be delivered by interactive and tutor led learning materials provided on the learning platform supplemented by readings. Tutor support will be available to students, via phone, email and a fortnightly seminar session.

On average, students are required to complete approximately 10-15 hours of study per module, per week, however this is indicative given the online nature of study.

Students can find this information within the Course Handbook and on the learning platform.

Description of unit of assessment	Length/Duration	Submission date	Weighting
<ul style="list-style-type: none"><li>■ Mid-module assignment:</li><li>■ Part 1 - Group presentation</li><li>■ Part 2 - Individual report</li></ul>	Equivalent to 2,500 words	Part 1 - Unit 4 Part 2 - Unit 6	50%
<ul style="list-style-type: none"><li>■ End of the module project-written report</li></ul>	2,500 words	Unit 12	50%