



IIM Kozhikode

Presents

# Advanced Supply Chain Management and Role of Analytics

Batch 02





## From the Director's Desk



Businesses today have seen a complete transition than they used to run a decade ago. It is thus imperative for business leaders and investment bankers of today and the future to expand their knowledge across domains and proactively make decisions to be effective leaders. IIM Kozhikode programmes designed by world-class faculty with their cutting-edge thought leadership and industry-leading insights empower participants to manage and lead complex business challenges with confidence and data-driven, informed decision-making ability. Our growing global footprints acknowledged and

accredited by leading institutions of the world are a testimony to growth we have achieved in our 25-year journey of academic excellence.

At this juncture, it is also pertinent to share that both future and past are integral to the path taken by an institution on this journey of excellence. Having a wide, far-seeing vision is not an indulgence but an activity that is necessary to give meaning to our present, to give this Institution a sense of purpose, direction and imagination. That is why we have chosen to think in terms of what IIM Kozhikode will be able to contribute to India and the world some three decades from now with 'Vision 2047: Globalizing Indian Thought'. The Institute has set for itself a pre-eminent role with the above motto. The sheer scale, scope and potential impact that India will have on 21st century business makes us believe that this is a legitimate aspiration.

Refine your calibre in the disruptive field of digital supply chain management and elevate your career by enrolling in this IIM Kozhikode's Advanced Supply Chain Management and Role of Analytics.

Wishing you all the very best!

**Prof. Debashis Chatterjee**

A handwritten signature in blue ink that reads "Debashis Chatterjee".

**Director IIM Kozhikode**





The Supply chain is a critical piece of puzzle for business success as it directly impacts both the customer satisfaction & profitability of an organization. Recent global events like pandemic, geo-political instability (wars), chip shortages, clogged ports, other logistics and climate change related disruptions have exposed the vulnerabilities and risks lurking in conventional supply chains. It has forced companies to take a hard look at their existing business model and associated supply chain processes. Such disruptions amidst the emergence of digital technologies enabled by better connectivity have forced leading organisations to relook at its value chain: from raw material sourcing to delivering to end customers. This was the testing period for the commercial, operational, financial, and organisational resilience of the majority of companies across the globe, and it also highlighted risks and resiliency gaps for many organisations.

**\*KPMG 2022**

These challenges encouraged organisations to look for opportunities provided by innovative digital technologies to leverage competitive advantage in the post pandemic world. Such technologies have demonstrated the power of interconnected Digital Supply Networks (DSNs) to enable organisations to anticipate, sense, and respond to unexpected changes proactively and minimise their impacts.

In the presence of these digital technologies, the supply chains can now capture and process the massive amounts of data. However, the challenge today is how companies can best use the huge amounts of data generated in their supply chain networks. A typical supply chain in 2017 accessed 50 times more data than just five years earlier. However, less than a quarter of this data was being analysed due to lack of capabilities and basic understanding of underlying fundamentals of supply chain.

**Despite the profound shifts experienced over the past year, the future of supply chains doesn't look all that different from how it was previously imagined, except being faster and more responsive, agile, and resilient**

**\*Deloitte (2020)**





# Programme Overview

The supply chain management models based only on past demand, supply, and business cycles can lead to missing on big opportunities to put analytics to work & thus unable to provide competitive advantage. By implementing technology, tools, and other resources to collect real-time data across everything from inventory flow to shipping performance, organisations are able to make better decisions on how to manage Supply Chain while optimising costs and operations with improved efficiency. The supply chain analytics solution offers better visualisation and insightful interpretation for organisations to make sense of the raw data. The new insights aid in the improvement of supply chain decision making, from front-line operations to strategic choices. It encompasses virtually the complete value chain: sourcing, manufacturing, distribution, and logistics. Today, organisations are restrained by two major challenges: a lack of capabilities and vision to leverage big data and a structured approach to explore, evaluate, and capture big data.

This programme is designed into three categories, which overlap with each other over the programme duration. It introduces to the participants the conventional supply chain process (plan, source, production, warehousing and distribution, sales, sustainability) and the challenges it has faced due to black swan events like COVID-19.

In due course, various supply chain analytics tools and techniques (Descriptive analytics, Diagnostic supply chain analytics, Predictive analytics, Prescriptive analytics, and Cognitive analytics) will be introduced. The use of these tools is expected to have an impact on various aspects of the supply chain, such as increased return on investment, better risk management, increased planning accuracy, and increased operational efficiency, allowing organisations to stay lean and better prepared for future uncertainties. Finally, participants will be introduced to topics such as the need for a digital supply chain, digital transformations, supply chain sustainability, and so on. The effect of these upcoming factors on business performance.

**Deloitte.**

“COVID-19 has accelerated the adoption of Digital Supply Chains (DSC).”

McKinsey  
& Company

“90% of leaders plan to increase the DSC talent within their organizations”

**KPMG**

“67% CEOs plan to enhance resilience by increasing investment in disruption detection/ innovation processes”





## Programme Details

Mode of Delivery: Direct to Device [D2D]

Duration: 10-12 Months\*

Schedule: Sunday- 09:00 a.m. to 12:15 p.m.

Application Closure Date: December 31, 2022

Programme Commencement: January 22, 2023

## What will the programme do for you?

The programme aims to evolve learners' mindset with the latest industry know-how they will explore new ways to drive deep understanding and build a foundation of concepts in regards to Advanced Supply Chain Management & Role of Analytics.

Understand complexities and challenges in managing the global supply chain.



Understand the importance of analytics for better decision-making in supply chain management resulting in improved financial/economic impact.



Develop a digital supply chain management strategy that embeds the right technologies for your business

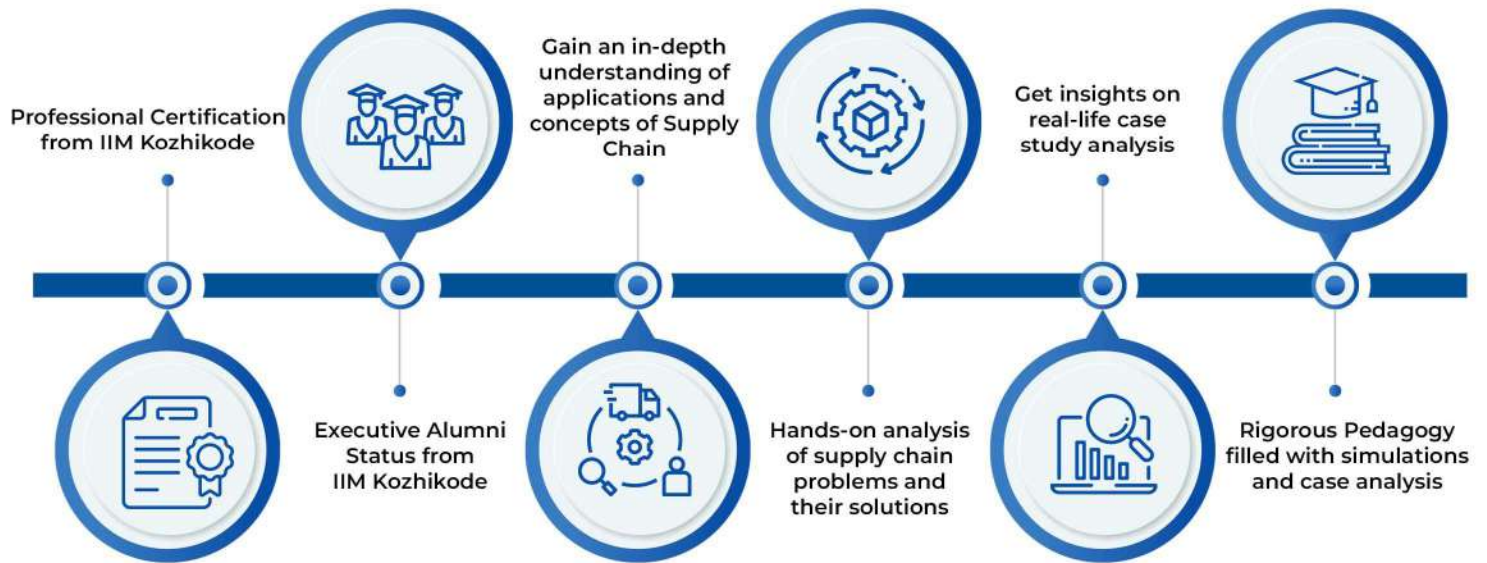


Lead organisational change and supply chain transformation



## Programme Highlights

Acquire a robust understanding of the supply chain through immersive learning delivered by IIM Kozhikode- Advanced Supply Chain Management & Role of Analytics programme. Discover real-world case-study analysis and exposure to the proven pedagogy that will inspire you with a broader perspective. On successful completion of the programme, participants will be eligible for the prestigious IIM Kozhikode Executive Alumni status. These participants will subsequently receive the alumni registration details from IIM Kozhikode.



## Eligibility & Selections

- Graduates (10+2+3) from a recognised university (UGC/AICTE/DEC/AIU/State Government/recognised international universities) in any discipline.
- A minimum of 03 years of work experience after graduation.





## Assessment & Evaluation

The evaluation methodology is at the discretion of the faculty. The methodology includes **online quizzes, case analysis, class contributions, assignments**, and any other component as decided by the faculty. A minimum of 75% attendance is a prerequisite for the successful completion of this programme. Participants must secure a minimum of passing marks in the evaluation components specified by the faculty.

The programme may require participants to work on **individual or group assignments and/or projects**. The main objective of such assignments/projects will be to help the participants apply their conceptual learning from the programme to actual organisational decision scenarios.

## Certification

**"IIM Kozhikode - Advanced Supply Chain Management & Role of Analytics"** for those who successfully complete the prescribed programme of Advanced Supply Chain Management & Role of Analytics and fulfil all the academic requirements.



### Note:

The participants who successfully complete the same and satisfy the requisite attendance criteria will be awarded a Certificate of Completion. Participants who are unable to clear the evaluation criteria but have the requisite attendance will be awarded a Participation Certificate.

# Who Should Attend this Programme?

Meet the supply chain management and analytics-related challenges, and apply forecasting methods to improve project strategy. Whether you are an experienced professional or a small supply chain business owner, this programme will enhance your skill sets. Participants can easily gain expertise and advance their current learning levels.

Participants who are at a managerial level and want to learn the nuances of supply chain management Professionals in Supply Chain Management who are looking for hands-on experience.

Working professionals who are keen on understanding the execution of supply chain management in real time.





# Holistic Curriculum

Working professionals who are aspiring to have a career in the supply chain management industry.

Pedagogy equips budding supply chain managers with tools and concepts to put them on the path to operational excellence.

Practitioners can attend online sessions that would be a combination of lectures, hands-on exercises using data, and case discussions in the learning process. The instructor expects the participants to participate actively in the class and actively work on the in-class exercise.

Participants are expected to read the textbooks or other assigned readings outside of class and participate in the critical evaluation of the material through class discussion.

Course evaluation will involve **assessments, quizzes, case analyses, projects, and simulations.**





# Programme Content

## Fundamentals of SCM

- ▶ Introduction to SCM
- ▶ Supply Chain Structure
- ▶ SCM processes & decisions

## Demand Planning & Forecasting

- ▶ Introduction to Demand Forecasting & Forecasting Accuracy
- ▶ Forecasting: Time series methods and causal methods
- ▶ Demand & Planning: Matching demand & supply

## Supply Chain Modelling & Design

- ▶ Basic overview of optimisation
- ▶ Transportation Problem
- ▶ Designing Distribution Network

## Managing Inventory in Supply chain and supply coordination

- ▶ Inventory management Models: EOQ, Quantity discount, Backorders
- ▶ Single period inventory models, continuous review models
- ▶ Risk pooling in supply chain
- ▶ Bullwhip effect and how to manage it

## Supply chain Integration and distribution strategies

- ▶ Direct shipment, cross docking, transshipment, etc.
- ▶ Postponement (Product and process)
- ▶ Last mile delivery

## Logistics & Global Supply Chain Management

- ▶ Freight transportation: Selection & its impact on inventory
- ▶ Warehousing: Design, Operations heuristics, Material handling
- ▶ Customs, Duties, Tariffs, INCO terms, Rules of origin, Letter of credit, etc.
- ▶ International transportation, Trading blocks, Trade zones, Bonded warehouses
- ▶ Currency fluctuations, Exchange rate risks, Transfer pricing, Permanent establishment



# Programme Content

## Procurement and sourcing management

- ▶ Outsourcing decision
- ▶ Sourcing Purchasing at right price
- ▶ Vendor rating
- ▶ Types of contracts
- ▶ Managing Channel Partner distribution and conflicts
- ▶ Supplier relationship & partnership

## Fundamentals of Data Analytics

- ▶ Introduction to Data and the Power of Data
- ▶ Descriptive Statistics, Data Visualisation and Advantages illustration through examples
- ▶ Summarising Data through Measures of Central tendencies
- ▶ Measures of Dispersions and Idea of risk
- ▶ Measures of Associations
- ▶ Sampling and Inferential Statistics: Overview
- ▶ Introduction to Predictive Analytics and Regression

## Other Application of Supply Chain Analytics

- ▶ Predicting customer preferences
- ▶ Pricing analytics
- ▶ Demand Analytics - Demand forecasting
- ▶ Procurement Analytics
- ▶ Production Analytics - Production Planning and Workforce Management
- ▶ Purchase Analytics - Order Management
- ▶ Predictive maintenance of equipment
- ▶ Cognitive analytics

## Basic of Data Analytics through R or similar tools

- ▶ Data analytics: Exploring the Tool
- ▶ Big Data analytics: Data analytics I (Statistical learning)
- ▶ Big data analytics: Data analytics II (Machine learning and applications)
- ▶ Big data analytics: Prescriptive Analytics



# Programme Content

## Digital Supply Chain Strategy and Transformation

- ▶ Digitising vs Digitalising in Supply Chains
- ▶ Digital ecosystem and Omnichannel revolution
- ▶ Digital SC Transformation Capabilities
- ▶ The role of Technology and its applications to Digital Supply Chains
- ▶ Digital SC Transformation Roadmap

## Predicting and managing risk in supply chain and designing resilient supply chains

- ▶ Tools and methods to identify Supply chain risk, assess risk and management risk
- ▶ Design resilience in the supply chain

## Sustainable Supply Chain Management (SSCM)

- ▶ Concept of triple-bottom line, carbon trading, Circular Economy
- ▶ Role of cradle-to-cradle design, sourcing, packaging, logistics in SSCM





## Know the Facilitator



### **Professor Rupesh Kumar Pati**

Ph.D. (IIT Roorkee) in Supply Chain Management  
M.Tech (ISM, Dhanbad) in Industrial Engineering and Management (Gold Medal)  
B.Tech (OUAT (now BPUT), Bhubaneswar) in Mechanical Engineering

Professor Rupesh Pati has conducted various research in the field of Sustainable Supply Chain, Project Management and Digital Transformation.





## Hear From Our Alumni



### **Kaumudi Kanchan**

(Business Development Manager)

3PL Contract Logistics

"I wanted better exposure to SCM and a deeper understanding of how to develop problem-solving solutions for organisations. The curriculum and the sessions gave a new perspective on how the solutions can be designed, an in-depth understanding of parameters, and a customer-centric focus. Thought-provoking analysis, risk assessment & analysis truly made a difference in my career. Jaro helped me connect with one of the best institutes in India and gave me direction to add value to my career."





## Programme Fee Structure

Particulars	Total Fee Amount (INR)
Application Fees	2000/- + GST
Total Fees (excluding Application fees)	2,65,000/- + GST

Instalment Pattern	
Particulars	Total Fee Amount (INR)
Booking Amount	85,000/- + GST
Instalment 1	60,000/- + GST
Instalment 2	60,000/- + GST
Instalment 3	60,000/- + GST

Easy EMI Options Available





# About IIM Kozhikode



NIRF India Rankings  
2022: Management



IIM Kozhikode sole IIM  
to feature in ARIIA 2021

IIM Kozhikode is ranked 5th as per the latest NIRF India Rankings 2022: Management. The Institute also made its global debut for its flagship MBA (101+ globally, 7+ in Asia) and EMBA programme (101+ globally, 15+ in Asia) in the 2020/21 QS World University Rankings. It is also ranked at No.2 in the CFLs, a non-technical category in the Atal Innovation Rankings (ARIIA 2021), released recently by the Ministry of Education, Govt. of India. IIM Kozhikode is globally accredited by EQUIS (EFMD) and AMBA (UK). Since its inception, IIM Kozhikode has successfully carved its niche in management education through a judicious blend of academics and real-world practice. The Institute continually adapts to the rapid influx of changes in the Indian business landscape by providing cutting-edge Management Development Programmes with innovative pedagogy and content to impart industry-relevant knowledge and skills to its executive education participants. Last year, IIM Kozhikode trained more than 3,400 executives through a wide gamut of programmes uniquely crafted for agile minds interested in thought-provoking questions and learning centred on business transformation and growth.

