€TRAINING

Digital Transformation in Supply Chain 4.0

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Introduction

Global supply chains are undergoing a radical transformation in the wake of Industry 4.0. Advances in technology have fuelled the digitization of supply chains and are changing the way businesses operate. The course will help you understand what digital supply chain management is and why it is important, identify new opportunities created by digitization, develop a digital supply chain management strategy and learn how to leverage the right technologies for your organization. The pandemic has exposed the vulnerabilities in global supply chains across most industries. Companies are therefore accelerating their efforts for digitizing operations and transforming their traditional supply chains through Industry 4.0 technologies in the wake of frequent and long-lasting disruptions.

Course Objectives

At the end of this course the participants will be able to:

- Develop knowledge of various issues, opportunities and challenges in Supply Chain Digital Transformation with emphasis to Industry 4.0 Technologies.
- Learn tools, techniques and solution methods for smart manufacturing, supply chain digital transformation, industrial analytics, new age business models, technological innovation, service innovation etc.
- Understand the importance of automation in manufacturing & service industry and identify appropriate application domains.
- Develop feasible systematic approaches to transform operations across functions while seeking world-class solutions to real problems synthesizing the relevant concepts learnt during the program.
- Leverage upcoming technologies to see an exponential growth
- Learn tools, techniques and solution methods for smart manufacturing, supply chain digital transformation, industrial analytics, new age business models, technological innovation, service innovation, etc
- Develop knowledge of various issues, opportunities, and challenges in Supply Chain Digital Transformation with emphasis on Industry 4.0
- Understand the importance of automation in the manufacturing & service industry and identify appropriate application domains
- Develop feasible systematic approaches to transform operations across functions while seeking world-class solutions to real problems synthesizing the relevant concepts learned during the program
- Evaluate and refine innovative product, process and/or service ideas
- Understand strategic landscapes of industries in both national and international contexts
- Work on practical models and templates to impact businesses
- Cultivate the habit of strategic thinking

Targeted Audience

- Entrepreneurs in services and eCommerce industries
- Managers in the manufacturing industry
- Managers in the service industry
- Managers in eCommerce companies
- Engineers in buying/ purchasing
- Mechanical engineers wanting to move to supply chain roles
- Logistics Lead/Manager
- Sourcing Lead/Manager

- Category Manager

Course Outline

Unit 1: Aligning Operations Strategy and Industry *4.0* Framework

- Operations Management Function and its Role/Significance
- Operations Strategy and Competitiveness
- Concept and Evolution of Industry 4.0
- Product Design & Development
- Design of Manufacturing & Service Processes
- Process Analysis
- An Introduction to Industry 4.0 Technologies

Unit 2: Manufacturing 4.0: Building and Managing Smart Factories

- Quality Management
- Lean Operations
- Six Sigma
- Facility Location
- Scale and Capacity Planning
- Scale and Capacity Planning
- Forecasting Approaches and Techniques
- Cyber Physical Systems
- Smart Manufacturing: Manufacturing 4.0, Quality 4.0, and Lean 4.0

Unit 3: Planning for a Digital Supply Chain

- Sales and Operations Planning: Aggregate Planning & Master Scheduling
- Operations Scheduling & Control
- Materials & Inventory Management
- Independent Demand Systems
- Inventory Control and Policies
- Dependent Demand Systems: Material Requirements Planning MRP
- Distribution Resource Planning DRP
- Inventory 4.0

Unit 4: Global Supply Chain Management

- Supply Chain Drivers and Metrics
- Supply Chain Network Design
- Sourcing in SCM: Make-Buy Decisions; Outsourcing/ Off-shoring
- Replenishment Approaches, Vendor Managed Inventory
- Coordination in Supply Chains: The Bullwhip Effect
- Supply Chain Contracts
- Transportation Modes, Networks and Tradeoffs; Transshipment
- Logistics 4.0
- Digital Fulfillment

Unit 5: Digital Supply Chain Transformation Across Industries

- Internet of things IoT
- Analytics 4.0 ◻ Making sense of the Industrial Analytics Market
- Digital Supply Chain
- Artificial Intelligence AI and Machine Learning ML Applications in SC
- Applications of Blockchain, Cloud Computing, AR and VR
- Retail and E-Commerce, Platform Business Models
- Services 4.0
- Healthcare 4.0
- Auto 4.0
- Smart Cities
- Supply Chain 4.0 - The vision for the next 5 years