MERCURY

Big Data Analytics for Supply Chain Optimization Course

15 – 19 November 2027
Amsterdam (Netherlands)



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Ref: 4106_287440 **Date:** 15 – 19 November 2027 **Location:** Amsterdam (Netherlands) **Fees:** 5600 Euro

Introduction:

This highly interactive and extensive big data analytics certification course will provide in-depth knowledge on tackling the complexities in modern supply chains and prepare professionals to face future challenges. The big data analytics for supply chain optimization course will be invaluable for individuals involved in supply chain and logistics.

The big data analytics for supply chain optimization training will equip them with the skills and techniques to predict market requirements while implementing strategies to optimize their activities, reduce costs, and enhance service provision.

Participants in the big data analytics for supply chain optimization course will learn state-of-the-art extensive data analytics methods for supply chain optimization, enabling them to decrease lead times, cut operational costs, and seamlessly transition into Industry 4.0.

Supply chain optimization is restructuring the supply and demand chain by utilizing big data analytics to improve efficiency and effectiveness. The core aim of a supply chain optimization course is to provide an in-depth understanding of how to analyze vast amounts of data, glean actionable insights, and apply optimization techniques to streamline supply chain processes.

Participants will explore various optimization strategies tailored to enhance each component of the supply chain, from forecasting and inventory management to logistics and distribution. With the primary focus on optimizing the supply chain, this unit promises to offer key competencies for fostering a data-driven culture within supply chain management.

Benefits of Taking this Big Data Analytics Course:

The subsection on the benefits of the data analytics course outlines the value professionals will gain by participating in this Big Data Analytics Training. Namely, it will significantly enhance the participant's capacity to leverage Big Data for informed decision-making and supply chain innovation. It promises a deepened understanding of current trends and hands-on experience with tools and approaches necessary for optimizing supply chain processes.

The certification achieved through this comprehensive Big Data analytics certification course is a testament to the participants' commitment to excellence and readiness for the evolving world of Industry 4.0.

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Targeted Groups:

- Business improvement specialists.
- Industry 4.0 pioneers and practitioners.
- Supply chain managers.
- Operation managers.
- Project managers.
- Finance managers.
- IT managers.
- Consultants.

Course Objectives:

Upon completing this big data and analytics course, participants will be able to:

- Utilize big data analysis tools and techniques to discern patterns in supply chain behaviors.
- Construct virtual models of supply chains and select among alternatives to maximize profits.
- Identify significant big data sources in their supply chain and logistics and optimize their utilization.
- Analyze customer behavior patterns and anticipate potential shifts.
- Strategically plan improvements in their supply chain using existing facilities and workforce.
- Prepare for integrating supply chain 4.0 as an essential component of Industry 4.0.

Targeted Competencies:

- Identification of significant big data sources within their supply chain.
- Interoperability with other supply chains.
- Dynamic simulation using significant big data analytics results and performing real-time cost/benefit analyses.
- Conducting swift short-term forecasting for immediate decision-making.
- Transitioning complex decision-making processes to artificial intelligence platforms.
- Empowering personnel to make long-term strategic decisions while technology manages short-term operations.

Course Content:

Unit 1: Industry 4.0 and Its Impact on Supply Chain:

- Introduction to Industry 4.0.
- Industry 4.0 drivers and impacts.
- Supply chain and logistics within Industry 4.0.
- Envisioning supply chain 4.0 and the future of logistics.

Unit 2: Big Data in Supply Chain and Logistics:

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- The big data 5 V's in supply chain and logistics are:

  - Volume.
  - Velocity.
  - Variety.
  - Value.
  - Variability.
  - Veracity.

- Discovering sources of big data within supply chain and logistics.
- Approach for data-driven supply chain optimization highlighting k-means, Apriori, Aykin, and Babu algorithms.

Unit 3: Supply Chain Optimization:

- Framework oriented on customer requirements.
- Optimizing the sales operations.
- Optimization of distribution.
- Optimization of inventory management.

Unit 4: Optimization of Manufacturing Process:

- Strategies for optimizing product design and fostering innovation.
- Streamlining the production process through enhanced extensive big data analysis.
- Leveraging big data analytics for improving logistics activities.
- Employing advanced models as foundations for future predictive models.

Unit 5: Integration of Modern Software with Existing ERP Software:

- Overview of the anyLogic cloud capabilities.
- Ensuring seamless interoperability between anyLogic and existing ERP software platforms.
- Integration of RFID and vehicle tracking systems for efficient connectivity.
- Techniques for expedited data extrapolation to ensure swiffer analysis and computation.