AI CERTs®

Executive Summary



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Introduction

The AI+ Supply Chain Practitioner certification equips you with the skills to apply artificial intelligence across modern supply chain workflows. You learn how to use AI tools to support demand forecasting, inventory planning, logistics optimization, supplier management, procurement, and day-to-day operational decision-making. The focus is on helping you work more efficiently while improving accuracy, visibility, resilience, and overall performance across supply chain operations.

Through this certification, you explore how AI can enhance key areas such as predictive analytics, warehouse automation, route optimization, risk monitoring, sustainability tracking, and supply chain communication. You gain practical experience in using AI-driven insights, automation, and intelligent decision-support tools to streamline workflows, reduce disruptions, improve collaboration, and support smarter decisions across supply chain teams.

The following topics will be covered in the certification:

- Fundamental Concepts of Supply Chain Management
- AI Concepts, Techniques, and Tools for SCM
- LLM and Generative AI Applications in SCM
- Ethical Considerations and Responsible AI in SCM
- Supply Chain Digitization, Orchestration, and Intelligent Systems
- Industrial Applications, Case Studies, and Business Value

Certification Prerequisites

- **AI Fundamentals:** Basic understanding of machine learning, data analytics, automation, and AI applications in business operations.
- **Supply Chain Knowledge:** Awareness of procurement, inventory management, logistics, warehousing, demand planning, and supplier workflows.
- **Data Privacy & Ethics:** Understanding of responsible AI use, data governance, transparency, and ethical decision-making in supply chain operations**.**
- **Data Interpretation:** Ability to read and use operational, logistics, inventory, supplier, and demand data to support business insights.
- **Technology Awareness:** Familiarity with tools and systems such as ERP, WMS, TMS, forecasting platforms, dashboards, and digital supply chain solutions.

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Who Should Enroll?

- **Supply Chain Professionals:** Those who want to use AI to improve planning, forecasting, procurement, logistics, inventory management, and operational decision-making across supply chain workflows.
- **Procurement and Sourcing Specialists:** Those involved in supplier selection, purchasing, contract support, and vendor management who want to use AI for better analysis, comparison, and negotiation insights.
- **Logistics and Transportation Professionals:** Those who manage shipping, routing, delivery, and freight operations and want to use AI to improve route optimization, cost control, and delivery performance.
- **Inventory and Warehouse Managers:** Those responsible for stock control, warehouse operations, order fulfillment, and storage efficiency who want to apply AI for demand sensing, replenishment, and automation.
- **Demand Planning and Forecasting Teams:** Those who analyze market trends, customer demand, and sales patterns and want to use AI-driven forecasting to support more accurate planning decisions.
- **Operations Managers:** Those who oversee supply chain processes and want to use AI to improve workflow efficiency, reduce delays, monitor performance, and support continuous improvement.
- **Supply Chain Data Analysts:** Those who work with logistics, supplier, inventory, demand, and operational datasets and want to improve reporting, insight generation, and decision support using AI tools.
- **Risk and Compliance Professionals:** Those who want to use AI to identify supply chain disruptions, monitor supplier risks, support compliance, and strengthen resilience across global operations.
- **Manufacturing and Production Professionals:** Those involved in production planning, scheduling, material availability, and process optimization who want to use AI to improve coordination and output efficiency.
- **Responsible AI and Digital Transformation Professionals in Supply Chain:** Those who want to ensure ethical AI adoption, data governance, transparency, and safe deployment of AI solutions in supply chain environments.

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Certification Goals and Learning Outcomes

- **Build a Strong Foundation in AI for Supply Chain:** Understand how AI transforms supply chain workflows, including demand planning, procurement, inventory management, logistics, warehousing, supplier management, and operational decision-making.
- **Apply AI in Core Supply Chain Tasks:** Use AI tools to support forecasting, inventory tracking, supplier analysis, logistics planning, documentation, reporting, and workflow automation with improved speed and accuracy.
- **Enhance Operational Decision-Making:** Leverage AI for demand prediction, risk identification, supplier performance analysis, route optimization, cost monitoring, and data-driven decision support across supply chain environments.
- **Design AI-Driven Supply Chain Workflows:** Explore how AI can streamline procurement cycles, warehouse operations, transportation planning, production coordination, order fulfillment, and end-to-end supply chain processes through automation.
- **Develop AI Support for Risk and Compliance Work:** Use AI to assist with supplier risk monitoring, compliance documentation, audit preparation, disruption alerts, and quality checks across supply chain operations.
- **Optimize Prompting for Supply Chain Use Cases:** Refine prompts for demand insights, inventory recommendations, supplier summaries, logistics reports, risk analysis, and operational communication while ensuring clarity and precision in outputs.
- **Apply Responsible AI in Supply Chain Practice:** Ensure ethical use of AI by maintaining data privacy, reducing bias, improving transparency, validating AI outputs, and ensuring human oversight in critical supply chain decisions.

The Impact of AI on Modern Supply Chain Practices

AI is significantly transforming modern supply chain practice across the globe, reshaping how procurement, demand planning, inventory management, logistics, warehousing, supplier coordination, and operational decision-making are planned, executed, and optimized.

AI is poised to have a profound impact on the global economy. The United States is the leader with a 30.19% market share, followed by the Asia-Pacific region at 23.34%. Europe holds 19.62%, and Saudi Arabia accounting for 4.87%, indicating how AI is developing regionally. (Source: MarketsandMarkets)

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These projected contributions underscore the evolution of AI in various regions. Government policies and funding are essential to support AI education and training. By following these strategies, businesses can prepare for the rapidly growing AI landscape and capitalize on its opportunities.

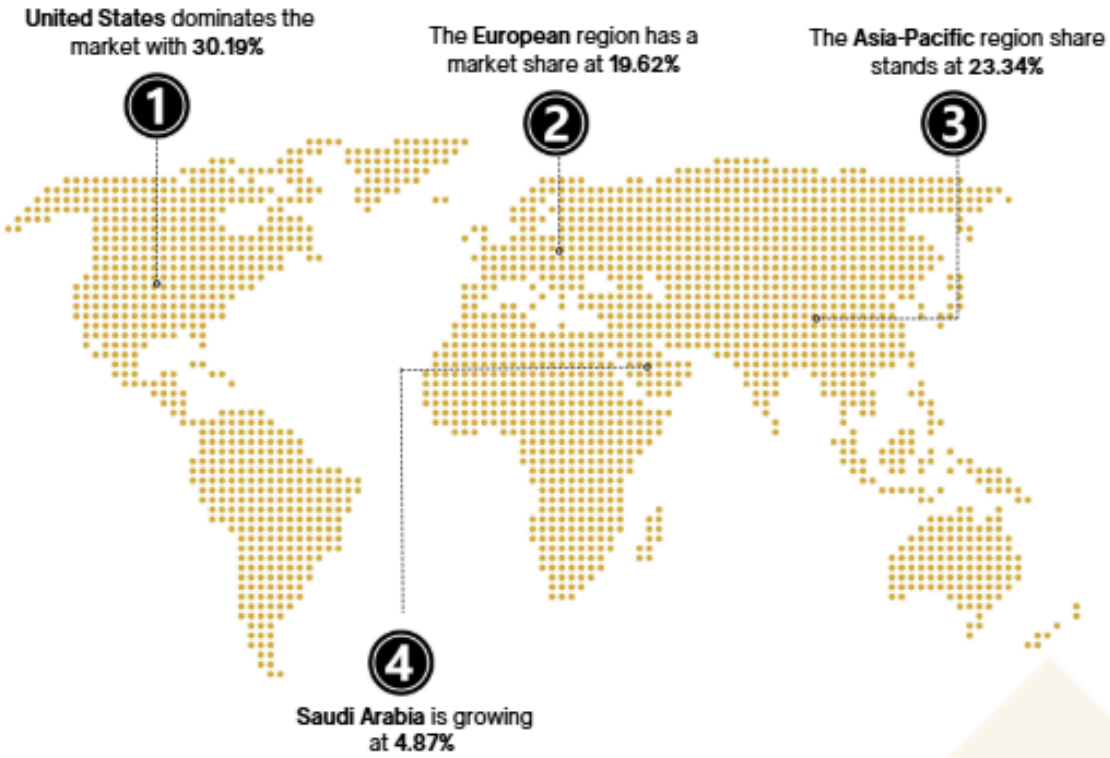


Figure 1: AI Global Market Share
Source: MarketsandMarkets

This global shift highlights how AI is strengthening modern supply chain practice by improving forecasting accuracy, operational efficiency, supplier collaboration, logistics performance, risk management, compliance, sustainability, and innovation across organizations and regions.

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What is Next for AI?

AI is moving toward more intelligent, predictive, and deeply integrated support across supply chain practice. The next phase of AI in supply chain will focus on strengthening demand planning, procurement optimization, logistics execution, warehouse automation, supplier management, and end-to-end decision-making through real-time insights and automation. Instead of working as a separate tool, AI will become embedded in everyday supply chain systems used for forecasting, inventory planning, transportation management, order processing, and supplier coordination. This shift will help supply chain professionals predict demand more accurately, optimize stock levels faster, reduce delays, and improve overall operational efficiency within tools and platforms already used across global supply chain networks. The future direction is moving from isolated analytics to connected, end-to-end intelligence across the entire supply chain lifecycle.

The next stage of AI in supply chain practice will also bring more specialized AI agents designed to support complex workflows from start to finish. With AI systems becoming more capable, supply chain professionals will be able to use intelligent agents that assist with procurement decisions, logistics planning, demand forecasting, risk monitoring, inventory replenishment, and compliance checks. These systems will help streamline collaboration between procurement teams, logistics providers, warehouse operators, and planning functions while improving consistency and accuracy in execution. At the same time, the focus will increasingly shift toward responsible AI use, where professionals must ensure data governance, operational transparency, bias reduction, sustainability alignment, and human oversight in all critical decisions. The future of AI in supply chain will belong to practitioners who can combine operational expertise with AI-driven insights to deliver faster execution, lower costs, stronger resilience, and more efficient global supply chain outcomes.

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How AI Transforms the Roles and Responsibilities of Supply Chain Practitioners

AI can transform supply chain practice by shifting traditional, manual, and disconnected workflows into intelligent, integrated, and data-driven systems. With AI tools applied across supply chain environments, professionals can improve demand forecasting, optimize inventory, strengthen supplier management, enhance logistics planning, and streamline procurement and warehouse operations within their existing digital ecosystems. This enables faster decision-making, better visibility, reduced operational risks, and more coordinated collaboration across supply chain teams.

Let us explore the key points to understand how AI is transforming the roles and responsibilities of Supply Chain practitioners :

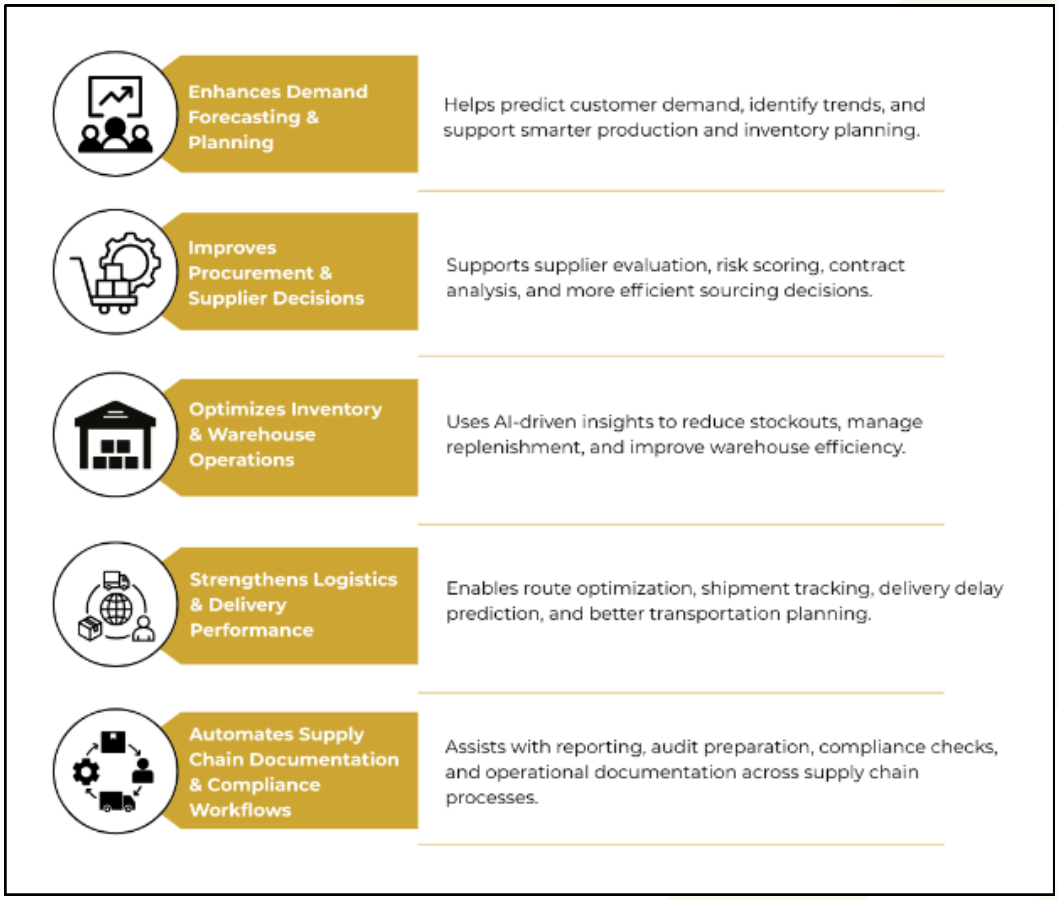


Figure 2. How AI Transforms the Roles and Responsibilities of Supply Chain Practitioners

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With AI in supply chain practice, supply chain teams can improve forecasting accuracy, strengthen operational decision-making, enhance supplier and logistics performance, and streamline procurement, inventory, warehouse, and transportation workflows. This leads to faster execution, improved efficiency, stronger resilience, and more connected supply chain processes backed by data-driven insights and responsible AI use.

How AI Address Current Challenges in Supply Chain Practices

Modern supply chain teams face increasing complexity in demand forecasting, procurement, inventory management, logistics, supplier coordination, warehouse operations, and risk management. AI helps address these challenges by enabling faster data analysis, improving planning accuracy, enhancing visibility, supporting real-time decision-making, and streamlining end-to-end supply chain workflows across global business operations.

Here's a breakdown of common challenges and how AI plays a role in overcoming Supply Chain challenges:

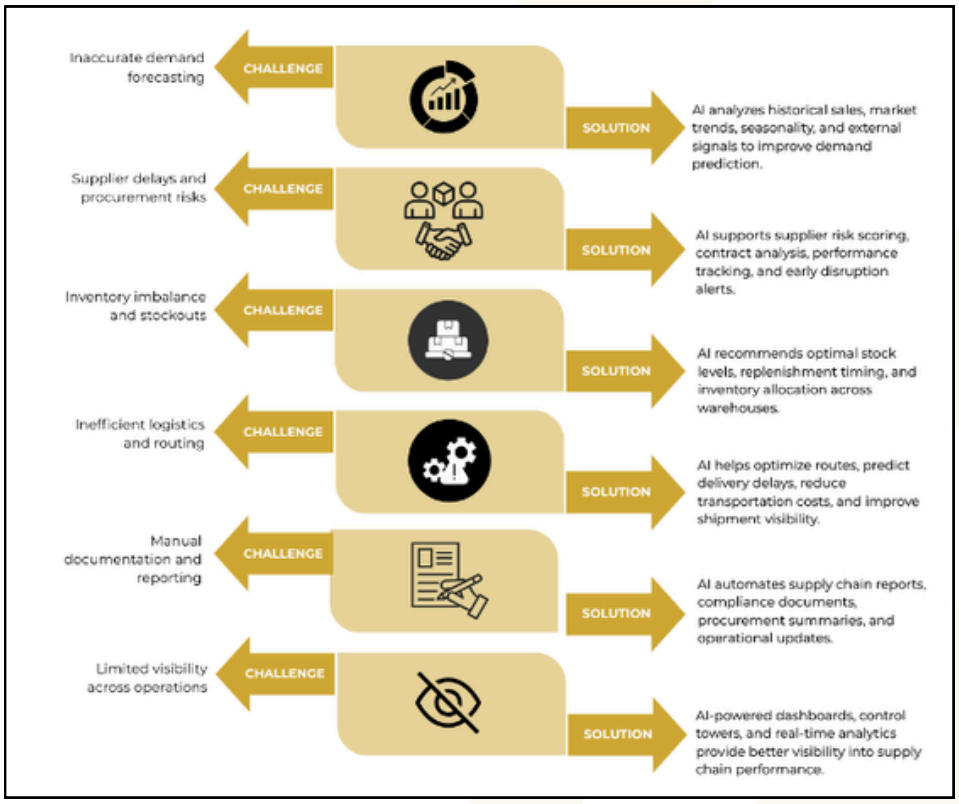


Figure 3: How AI Address Current Challenges in Supply Chain Practices

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With AI in supply chain practice, professionals can manage complex planning, procurement, logistics, inventory, supplier, and operational challenges with greater accuracy, speed, and consistency while ensuring transparency, resilience, cost efficiency, and responsible decision-making remain at the core.

How Supply Chain Practitioners are Adopting AI

Supply chain practitioners are increasingly adopting AI to improve forecasting accuracy, optimize logistics, strengthen supplier management, and enhance operational decision-making. By leveraging AI technologies, supply chain teams can analyze large volumes of demand, inventory, transportation, supplier, and customer data to identify patterns, predict disruptions, and support faster business decisions. AI is also being used to streamline procurement, improve warehouse efficiency, optimize route planning, and support real-time shipment visibility through predictive analytics and automation systems. Additionally, supply chain teams are using AI to enhance compliance, automate documentation, monitor supplier performance, and reduce operational inefficiencies across the end-to-end supply chain lifecycle. AI is also helping reduce planning errors, improve cost control, strengthen risk management, and enable more responsive and resilient supply chain operations. Through strategic adoption, AI is enabling supply chain organizations to become more efficient, agile, data-driven, and customer-focused.

How to Integrate AI into Supply Chain Practices

Integrating AI into supply chain workflows enables organizations to improve planning accuracy, enhance operational visibility, and streamline procurement, inventory, logistics, warehousing, and supplier management processes. By embedding AI into existing supply chain systems, professionals can strengthen demand forecasting, optimize stock levels, improve transportation planning, identify risks earlier, and support more efficient collaboration across procurement, operations, logistics, finance, and supplier teams.

Below are the key steps to integrate AI into Supply Chain practices :

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Figure 4 Key Steps to Integrate AI into Supply Chain Practices

Integrating AI into supply chain workflows enables teams to improve forecasting accuracy, strengthen operational decision-making, enhance supplier and logistics performance, and streamline end-to-end supply chain operations for faster, more resilient, cost-effective, and data-driven outcomes.

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Module 1: Fundamental Concepts of Supply Chain Management

Understanding supply chain fundamentals is essential because every AI-driven improvement depends on knowing how supply chain processes work. Learners need clarity on planning, sourcing, manufacturing, delivery, returns, risk, resilience, and performance metrics before applying AI to real-world supply chain challenges.

In this module, you will learn the SCOR model, including Plan, Source, Make, Deliver, Return, and Enable. You will also explore procurement, inventory management, logistics, warehousing, demand forecasting, risk management, global challenges, KPIs, and how to map a real-world supply chain.

Module 2: AI Concepts, Techniques, and Tools for SCM

Understanding AI concepts is essential because supply chain professionals must know how AI models analyze data, predict outcomes, recommend actions, and optimize decisions. This foundation helps learners connect AI techniques with practical supply chain needs such as forecasting, supplier risk, logistics, inventory, and operational efficiency.

In this module, you will learn AI and ML fundamentals, including supervised learning, unsupervised learning, predictive analytics, prescriptive analytics, optimization, and reinforcement learning. You will also explore neural networks, computer vision, NLP, digital twins, edge AI, AI tools, IoT data, pipelines, and data governance.

Module 3: LLM and Generative AI Applications in SCM

Understanding LLMs and Generative AI is essential because supply chain teams increasingly use AI to summarize documents, support decisions, simulate scenarios, draft communication, and generate reports. These capabilities reduce manual effort and help professionals work faster with contracts, supplier data, planning documents, and operational insights.

In this module, you will learn how LLMs and GenAI support demand planning, contract analysis, supplier communication, scenario simulation, report generation, and synthetic data creation. You will also explore AI copilots, knowledge management, limitations, grounding challenges, and tools such as LangChain, LlamaIndex, and enterprise GPT-like systems.

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Module 4: Ethical Considerations and Responsible AI in SCM

Understanding responsible AI is essential because AI decisions in supply chains can affect suppliers, customers, costs, compliance, sustainability, and workforce roles. Learners must know how to manage bias, protect data, explain AI outputs, maintain human oversight, and ensure AI adoption remains fair, secure, transparent, and compliant.

In this module, you will learn about bias in forecasting and procurement, transparency, explainability, privacy, data security, regulatory compliance, workforce impact, upskilling, human-AI collaboration, sustainability, ESG monitoring, ethical sourcing, carbon tracking, governance frameworks, and risk management for responsible AI adoption.

Module 5: Supply Chain Digitization, Orchestration, and Intelligent Systems

Understanding digitization and orchestration is essential because modern supply chains rely on connected systems, real-time visibility, automation, and intelligent decision-making. Learners need to know how ERP, SCM platforms, cloud, APIs, blockchain, control towers, and digital twins work together to create responsive and resilient operations.

In this module, you will learn how digital systems integrate supply chain data and workflows. You will explore ERP and SCM platforms, cloud integration, blockchain traceability, APIs, control towers, real-time visibility, data pipelines, digital twins, predictive and prescriptive analytics, autonomous exception management, robotics, computer vision, edge AI, and human-AI collaboration.

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Module 6: Industrial Applications, Case Studies, and Business Value

Understanding industrial applications is essential because AI adoption must create measurable business value, not just technical improvement. Learners need to see how AI improves efficiency, reduces costs, strengthens resilience, improves service levels, and supports better decision-making across different industries and supply chain environments.

In this module, you will learn how AI is applied across manufacturing, retail, automotive, healthcare, logistics, and CPG. You will explore industry use cases, ROI, efficiency gains, cost reduction, resilience improvement, pilot-to-scale implementation, change management, case studies from leading solution providers, and KPIs for measuring AI success.

While AI offers immense opportunities, businesses frequently encounter obstacles such as skill gaps, managing complex data, and integration challenges. At AI CERTs, we tackle these issues head-on with expertly crafted certifications, empowering organizations to build the expertise needed to overcome these barriers and unlock AI's full potential.

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How Can AI CERTs Help Build an AI-Ready Culture?

While AI offers immense opportunities, businesses frequently encounter obstacles. At AI CERTs, we tackle these issues head-on with expertly crafted certifications, empowering organizations to build the expertise needed to overcome these barriers and unlock AI's full potential.

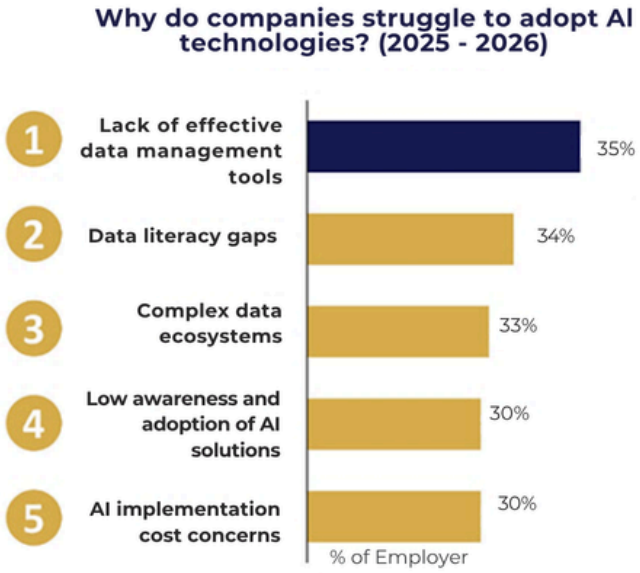


Figure 5: Factors Determining the Lack of Adopting AI Technologies
Source: Precisely, State of Data Integrity and AI Readiness Study 2026

Bridging the AI Skill Gap

- **Challenge:** Many supply chain professionals face difficulty in integrating AI into daily workflows due to limited technical expertise and fragmented data systems. This restricts their ability to fully leverage AI in demand forecasting, procurement, inventory planning, logistics optimization, supplier management, risk monitoring, and performance analysis, leading to slower decisions, operational inefficiencies, and missed opportunities for improvement.
- **Solution:** The AI+ Supply Chain Practitioner course provides targeted training to bridge this gap. It equips professionals with practical knowledge to apply AI across supply chain workflows, including forecasting, inventory optimization, supplier risk analysis, logistics planning, warehouse automation, reporting, and responsible AI adoption. The course focuses on real-world applications that improve decision-making, visibility, resilience, and operational efficiency.
- **Benefit:** By completing this training, supply chain professionals gain the ability to effectively use AI tools across planning, procurement, logistics, warehousing, and operations. This improves forecast accuracy, reduces delays, strengthens supplier collaboration, enhances risk management, supports compliance, and enables more agile supply chain decisions. Ultimately, it leads to faster execution, lower costs, stronger resilience, and more efficient supply chain operations.

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Empowering Supply Chain Professionals with AI Skills

- **Challenge:** Supply chain professionals often struggle to access and effectively use advanced AI tools in their daily operations. This limits their ability to improve demand forecasting, inventory planning, procurement, supplier management, logistics optimization, warehouse operations, risk monitoring, and performance reporting, slowing decision-making and reducing operational efficiency.
- **Solution:** The AI+ Supply Chain Practitioner course provides comprehensive, up-to-date training tailored to modern supply chain environments. It equips professionals with practical skills to integrate AI into key workflows such as forecasting, supplier analysis, logistics planning, inventory optimization, digital orchestration, risk management, and responsible AI adoption, enabling smarter and faster operational decisions.
- **Benefit:** By gaining hands-on knowledge of AI tools, supply chain professionals can apply AI more confidently in daily tasks, improving accuracy, speed, visibility, and collaboration. This leads to better forecasting, reduced delays, stronger supplier performance, optimized inventory, improved resilience, lower costs, and more efficient end-to-end supply chain operations.

At AI CERTs, we offer a strategic solution, fostering a culture primed for AI integration and innovation. Our AI certification offers in-depth training and industry-recognized credentials, equipping employees to drive your company towards an AI-powered future.

AI CERTs Cultivate AI Culture in Several Ways:

- Our certification provides a clear and comprehensive introduction to AI fundamentals and applications, designed to make the learning experience easy and accessible.
- We ensure continuous learning opportunities to keep your team updated on emerging AI advancements, empowering your company to lead the industry.
- AI CERTs promote teamwork and knowledge sharing, fostering the critical collaboration needed for seamless AI adoption.

AI CERTs: Your Pathway to Becoming AI-Ready

The future of business belongs to those who harness the power of AI.

Tailored for Success: Our certifications are crafted to address your team's unique requirements, offering specialized training to equip them with the vital skills needed for key AI roles.

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Actionable Expertise: Through hands-on learning with real-world projects and case studies, we enable your team to gain practical expertise and implement AI effectively to foster innovation and progress.

Become an AI Leader: Empower your team with AI CERTs to build an AI-driven culture, unlock cutting-edge technology, and drive your organization's success.

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