

Gartner for Supply Chain

# Artificial Intelligence in the Supply Chain



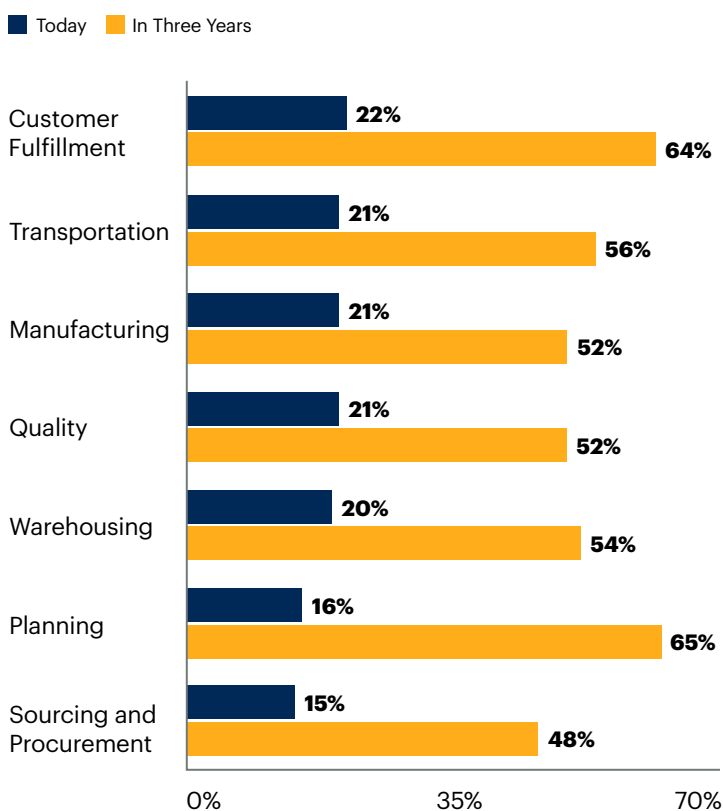
## Supply Chain AI Is a Growing Priority

In the 2021 Gartner CEO and Senior Business Executive Survey, CEOs said they expect artificial intelligence (AI) to have the most impact on their industry through 2025. In supply chain, advanced analytics and big data continue to be viewed as the most important emerging technology areas.

The use of AI is no longer an aspiration, but a well-defined goal for supply chain leaders. Companies also expect dizzying growth in automation across supply chain functions (see figure at right).

In the planning function, 16% of companies report a high level of decision-making automation today, compared to 65% with similar expectations in three years. Likewise, 21% report a high level of decision-making automation in transportation today, compared to 56% indicating similar expectations come 2025.

### Increase in Level of Decision-Making Automation in Three Years (by Function)



n = 388

Source: 2021 Gartner Sustaining a Customer-Centric Digital Supply Chain Ecosystem Survey

# How Supply Chain Leaders Are Solving AI Challenges

Although further adoption of AI and machine learning (ML) is essential to manage the increasing complexity in supply chains, its inevitable byproduct is loss in human domain knowledge. For example, transitioning to a fully automated forecasting process using ML might result in significant improvements in forecast accuracy but might also decrease opportunities for junior planners to learn how to generate a forecast based on customer, market or product insights.

Many supply chain leaders are developing strategies to combine human domain knowledge with analytics insights. The following are scalable and repeatable strategies that demonstrate a return on investment in digital technologies:



## Crowdsourcing

Consider humans and machines equal contributors. Humans can bring their insights and predictions based on domain knowledge, while machines and algorithms can contribute data and analytics-based insights. This powerful combination will improve decision quality.



## Process Mining

Augment human decision making by uncovering additional process automation opportunities and providing feedback on how operational decisions align with supply chain strategies. Conversely, organizations can capture human domain knowledge by tracking the tasks humans undertake to make a decision or execute an action. Use this combination to capture humans' value-added deviations from defined processes.



## Data Literacy

Develop staff to understand and “speak” data and analytics. This will allow humans to better augment machines. By understanding data, humans can augment their decisions with analytics insights and recommendations.

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