JOHN GALT

5 Ways AI Drives Value in Supply Chain Planning

AI delivers tangible value across key areas of supply chain planning, with new capabilities and use cases being added every day. Here are just a few of the ways AI techniques are transforming data into insights and intelligently shaping decision making.

	ROLE OF AI	HOW AI TRANSFORMS PROCESSES	TOP 3 BENEFITS	DID YOU KNOW
1. MEIO (Multi-echelon Inventory Optimization)	Optimizing inventory across the end-to-end supply chain with AI-driven network risk pooling, aggregating demand across locations and fulfillment paths to reduce variability and uncertainty.	• AI-driven data-cleansing • Streamlines planner workloads • Quickly tackles complex decisions	• More working capital • Higher fill rates • Reduced product waste	**57%** of supply chain executives are interested in advanced digital and AI-based tools for inventory optimization *— McKinsey*
2. Demand Sensing	Creating more active and short-term granular demand forecasts, quickly connecting disparate data to extract insights, recommending next steps, and automating intelligent workflows.	• Identifies patterns sooner and faster • Identifies non-obvious, causal relationships • Improves predictors for greater strength, accuracy	• Sense changes much earlier • Avoid data waste, enriching results • Better predict customer purchase behavior that impact inventory	Applying AI models to supply chain management can **reduce forecast errors by between 20 and 50%** *- McKinsey*
3. New Product Forecasting	Using AI to analyze product lifecycles, market trends, and demand volume, as well as product affinity based on prior launches, to accurately model and forecast demand for new products.	• Identifies lifecycles across a range of characteristics • Calculates demand volume based on trends	• Better prediction of purchase behaviors or events • Improved lifecycle planning • Reduced out-of-stocks	Companies with digital prowess in AI can achieve a **20% acceleration of revenue growth** and a **30% boost in profitability** *- Accenture*
4. Purchase Order Optimization	Improves PO optimization by establishing an optimization framework, analyzing purchase orders by vendor, and ensuring purchases meet minimums and need by dates.	• Optimizes profit with probabilistic elements • Determines right-sized replenishment strategies	• Enables pricing considerations • Profit optimization • Improves service levels while addressing demand volatility	Integrated AI planning delivers a **1% to 4% increased revenue** for the supply chain *— KPMG*
5. Shifting to Probabilistic Forecasting	Connecting internal/external data points to account for demand volatility, quantifying uncertainty, incorporating nuanced relationships between variables and interdependencies.	• Dynamically adapts to changing environments • Modeling sequential decision making	• Focusing decision-making • Improving adaptability and mitigating risks • Creates a culture of informed risk-taking	**Composite AI**, which is the combined application of different AI techniques to improve learning efficiency, will **drive the optimization and automation** of many planning activities at scale. *— Eva Dawkins, Director Analyst at Gartner*

The Pivotal Role of AI

The future will bring many more transformative AI innovations to supply chain planning. Partner with a supply chain planning software vendor with expertise and a long track record in AI, like John Galt Solutions, to take the next step into new AI-enabled capabilities and set up your supply chain for success.