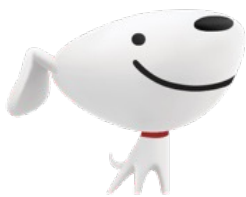


Gartner®



# Process or Technology Innovation of the Year

JD.com



**JD.COM**

Powerful Planning Technology Drives an  
Innovative Approach to Resilient Planning

# Powerful Planning Technology Drives an Innovative Approach to Resilient Planning



JD.com's innovative resilient planning platform covers millions of SKUs and enables its supply chain to better serve more than 600 million consumers despite unpredictable disruptions. The resilient planning system integrates probabilistic forecasting with explainable AI, which provides greater insights and clarity across a multitude of uncertainties to support better and more informed decision making, resilience and agility. The platform has significantly improved the efficiency of planners.

One of the world's largest retailers, Beijing-based JD.com operates more than 1,600 warehouses with more than 10 million SKUs. Beyond the underlying complexity of JD.com's supply chain — supply shortages, demand fluctuations and worldwide disruptions driven by COVID-19 and natural disasters — have all added to JD.com's supply chain pressures and complexity.

Previously, JD.com's planning process was based on a "one number" forecast approach where sales forecasting, vendor lead time forecasting and others only planned against one number. But that one number did not reflect different possibilities of risks, opportunities and fluctuations occurring in the end-to-end supply chain. This resulted in low planning accuracy and inefficiencies driven by ineffective planning decisions. Also, there was no visibility of the middle process between inputs and outputs, making it hard for planners to understand the outputs and recommendations from the planning system. When combined with volatility and inability to optimally plan for this volatility, the lack of visibility drove low trust in system-generated outputs and plans.

JD.com reinvented its supply chain planning process. The new innovative planning platform drives resilience by enabling visibility, agility and calculated risk management. But JD.com did not stop there, they further improved by integrating explainable AI with probabilistic forecasting. Probabilistic forecasting drives visibility, while explainable AI drives clarity and understanding. Beyond just showing uncertainties, the new planning platform also explains the reasons behind each possibility, transforming planning from an unclear and confusing process into a transparent process with improved clarity.

## Benefits

- User adoption rate increased by 25%, from 70% to 95%.
- The automation rate of forecasting and replenishment increased by 20%, from 70% to 90%, significantly improving the efficiency of planners and simplifying how planning works.
- Beyond increased productivity, planning accuracy improved by 25%, from 65% to 90%.
- Vendor lead-times reduced by 15% (from 7.2 days to 6.12 days).
- Increased product availability and the offering of increased services during disruptive events — for example, service levels were maintained at 96-97%, while order cancellations reduced by 5% under the disruption of extraordinary storms.



**See the full list of 2024 Gartner Power of the Profession™ award-winning supply chain initiatives.**

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