



Increase revenue with AI/ML-powered demand planning

How to improve your forecast accuracy and customer satisfaction



What are AI and machine learning?

Artificial intelligence (AI) is a broad term for the ability of a computer to perform various analyses and decision processes associated with the human brain. Machine learning (ML) is a specific type of AI in which a computer analyzes multiple types of data, builds a model to make predictions (or decisions) from this data, evaluates the output, and then learns from its results and tunes the model for optimal predictions.

Why are AI and ML important for demand planning?

You know that demand planning has never been more difficult. Changing consumer behavior, shorter product lifecycles, and increasingly frequent supply chain disruptions have all contributed to increase the uncertainty of demand. But help is on the way.

In recent years, AI and ML have shown great promise for helping planners improve their forecasts. Research from the McKinsey Global Institute found that AI can improve forecast accuracy between 10 to 20 percent, resulting in up to a five percent reduction in inventory, and revenue increases of two to three percent.¹ Demand planning is particularly suited to ML because a demand planning application has ongoing access to actual demand data. It can continuously compare its forecasts with actual results and improve its accuracy over time. In addition, ML is better than traditional forecasting techniques at sorting out which “causal factors” (see below for more detail) are driving demand and how these change over time as market conditions evolve.

Why now?

You’ve probably heard a lot about AI and ML over the last several years. Interest in AI and ML has been driven by advances in data science and the increasing availability of cloud computing power. However, until now the application of ML to enterprise demand planning has been limited because ML can be complex and labor intensive, requiring employees with deep backgrounds in data science.

That’s all changed. AI and ML have matured to the point where they can be automated so that non-specialists can use the technology and companies can scale applications across their businesses. Anaplan is at the forefront of this trend, and has embedded its own ML technology in the form of PlanIQ with Amazon Forecast into its Demand Planning application.

Amazon Forecast is based on the world-class forecasting technology Amazon developed to run its own businesses, and Anaplan has natively integrated it into the Anaplan platform. The technology is very sophisticated, but it insulates users from complexity through automation. This will “democratize” ML, so planners without data science expertise can use and benefit from the technology throughout their companies.

¹ AI Frontier: Insights from Hundreds of Use Cases, McKinsey Global Institute, April 2018

EXAMPLE

AI and ML success story

INDUSTRY	CHALLENGE	SOLUTION HIGHLIGHTS	RESULTS
Industrial	Replace traditional forecasting systems with one that wouldn't need constant overrides by the sales team	Data about the company's past and future activities includes things such as promotional periods, prices, opportunities, industry market caps, and historic stockouts	<ul style="list-style-type: none">Improved forecast accuracy by 2–8%, depending on customer segments, minimizing the need for manual overridesInstilled trust in the forecasting process
Consumer Goods	Improve expensive and error-prone forecasting for certain products at top-tier retailers	Up and running in a few days	<ul style="list-style-type: none">Outperforming both the prior solution and manual forecast process
Retail	Improve forecasts and reduce inventory by using large volumes of data that existing solutions couldn't handle	Create forecasts across tens of thousands of SKUs	<ul style="list-style-type: none">Improved forecastsRevealed millions of dollars in potential savings
Pharmaceuticals	Automate very manual forecasting processes	End-to-end process, from setting up the App to visualizing the forecasts, took less than five days	<ul style="list-style-type: none">Delivered better predictions than the company's existing manual process about 75% of the timeAccuracy improved between 2-16%
Healthcare	Replace spreadsheet-based manual forecasting to increase efficiency, improve accuracy, and reduce errors	Leveraged four years of daily data to forecast staffing needs and reduce costs	<ul style="list-style-type: none">Increased accuracyReduced costsSimplified forecasting process

What are causal factors?

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The Anaplan way vs. the old way

Traditionally, deploying and using AI and ML technology for forecasting has required data science expertise and considerable effort. Data needed to be manually prepared and cleansed. Forecasting models needed to be configured by experts and then periodically tuned to adjust for changes in market conditions.

CPG CASE STUDY

An innovative food and beverage subsidiary of one of the world's largest consumer packaged goods (CPG) companies wanted to improve the efficiency of its forecasting process. Their forecasts were sufficiently accurate, but their process was very manual and time-consuming.

Forecasts are particularly challenging for this company because of the seasonal nature of their products and the large number of promotions they run. A given promotion can behave differently depending on the product, customer, and time of year. If the forecast is too low, shelves go empty and revenue is lost. If too high, not only does the company incur higher inventory carrying costs, but there can be considerable spoilage of their perishable products.

The company deployed Demand Planning with PlanIQ. They are now obtaining the accuracy they need with a much more automated and efficient process.

What AI-powered demand planning looks like

Forecasting with Anaplan's Demand Planning is straightforward and can take as little as a few days to get up and running. The process consists of three key steps outlined below:



Leverage Your Data

- Historical data
- Causal factors
- Item metadata



Train and generate ML forecasts

- Automatically fill data gaps
- Add built-in data sets
- Train forecast models automatically, with Anaplan Auto ML



Create your forecast

- Use a simple three-step process via an intuitive wizard-like user interface
- Run or schedule the forecast
- Review results

AI can **improve** forecast accuracy by

10 to 20%

Resulting in up to a **5% reduction in inventory**, and revenue increases of **2 to 3%**

Forecasts are available at the fingertips of planners for every planning combination

(i.e., product and location in a company's portfolio).



Anaplan PlanIQ
Forecast Configuration Steps
Set-up can be completed
in as little as **a few days**

With AI and ML automated and provided as a managed service, companies can easily benefit from superior forecast accuracy. And embedded into Anaplan Demand

Planning, the power of AI and ML can be made available to non-expert business users and scaled across organizations for day-to-day use.

Get started with Anaplan Demand Planning and schedule a demo today.

About Anaplan

Anaplan transforms the way you see, plan, and lead your business. By dynamically connecting financial, strategic, and operational plans in real time, Anaplan gives you the power to anticipate change, address complexity, and move at market speed. Anaplan's Connected Planning platform lets you view and contextualize current performance, forecast future outcomes to fuel growth and mitigate risk, and optimize costs so you can make faster, more strategic decisions. Anaplan helps more than 2,400 market-leading customers in over 50 countries navigate their daily planning challenges with confidence.

To learn more, visit [Anaplan.com](https://www.anaplan.com)