Five things to consider when selecting an AI-driven demand forecasting platform

By Drew Ryder

When we think of artificial intelligence (AI), the first thought is often to physical robots and automation systems. But some of the most valuable uses for AI will be realized in software which does a lot of the heavy lifting for important business processes. One of these is demand forecasting.

Until now, most businesses buying, and stocking inventory have used simple methods for predicting future demand for their products. Initially, it was entirely human-powered. Purchasers would use their knowledge of historical sales patterns to decide how much to buy at any given time.

The first software systems for demand forecasting were built on static, deterministic algorithms. These are fine when supply chains are predictable but lose their utility rapidly as the supply chain becomes more complex and variables increase. That became abundantly clear during the Covid 19 pandemic. No deterministic system could have predicted that.

Using AI and machine learning, we have a better shot at predicting black swan events. AI-driven software models can be trained to look for signals across large, complex datasets. Unlike deterministic software, which gets less useful with more variables, AI models get better and better over time.

As supply chains become more and more complex, the need for AI-driven demand forecasting is increasing. But few companies have adopted it, either because they do not know about it or because they cannot get an affordable solution.

Here are five key features to consider when selecting an AI-driven demand forecasting platform:

1. Rapid Deployment

Complex AI models can take more than 12 months to set up and deploy. Look for vendors that can cut that time significantly by using agile processes to ingest your historical data and do not require a full integration with an existing ERP or warehouse management system.

2. Low Cost to Entry (SaaS)

The data scientists, AI engineers, security, cloud services, governance needed to create specific AI models do not come cheap. If you hire them to create a custom platform, expect to pay north of seven figures. The better option is to sign a contract for software-as-a-service (SaaS) and spread the cost over time. Ideally, the software pays for itself almost immediately as you realize savings from more accurate demand forecasting.

3. Visualizing the Financial Value

The potential cost savings gained from enhanced forecasting accuracy and reduced error rates will show up in your bottom line and in the value gained from increased customer satisfaction. A well-designed demand forecasting dashboard presents all your critical information on one screen and allows you to understand the value of purchasing/stocking decisions. You should be able to see at a glance what your current forecasting accuracy rate is and how much that is impacting results. You should also be able to dig into the data by location, by individual store/facility, or down to specific product SKUs.

4. Risk Visibility

Any decision to purchase a certain amount of product or type of product carries intrinsic risk. How certain are you that you can sell that item in a reasonable time frame and at a profit? A good demand forecasting system helps mitigate this risk by providing greater certainty that the demand will be there when expected. It narrows the gap between overstocking and understocking while still leaving a sufficient safety margin to avoid out-of-stock events.

5. Demand Sensing Intelligence

The ability to predict future consumer product and pricing demand trends can be exceedingly difficult in rapidly changing market conditions. If you use the right demand forecasting platform, it becomes less of a guessing game. Sales pricing can be optimized to changing conditions, ensuring you are moving enough product to match your supply. This can only be done well with AI-driven software which combines your historic sales data with third-party data to see changes in consumer buying trends.