Integrating AI Into the Supply Chain

by Nate Lorentz, CPA

Implementing artificial intelligence (AI) into business applications can produce game-changing circumstances that we can't even imagine. While companies have made significant strides with AI in marketing, product management and customer service, Forrester Research reports that only about one in eight companies have applied AI to logistics and supply chain management.

There can be any number of reasons why this is the case. For example, in many instances there are numerous third parties involved in the supply chain process. What's more, these third parties most likely will possess varying levels of technological sophistication and data availability—and data availability is essential.

Before implementing AI into a company's processes, the IT team must determine what data is needed to make the system produce the desired results. They also must determine what types of data are currently available and whether that data can be effectively incorporated into the company's system. Only then can a truly beneficial AI program be implemented.

The major hurdle at this stage of the process is that some sources of the data may be driven by outside partners, and these outside partners also may have varying levels of data quality and quantity. It will be the task of the IT staff to parse all the data available to optimize its impact on the ultimate AI system.

The Possibilities are Endless

Much progress has been made in supply chain management over the past several decades. Up until now, those improvements have enabled companies to develop standard deliveries and/or typical turnaround schedules. With AI, the guesswork has been swept aside in favor of predictive actions that are much more precise and reliable.

For example, companies are utilizing AI by having robots move around store aisles and conduct inventory counts using a camera. Tracking inventory levels over a period of time should enable an effective AI system to make accurate predictions as to product availability as well as shipping and delivery dates. Rather than have sales people guess at delivery between four and eight weeks, armed with accurate data and analysis, that same sales person can pinpoint delivery to within a few days.

Giving a salesforce that kind of power is possible because the manufacturing and operations people now have a more definitive picture of parts availability (on hand and for reordering), processing time and delivery capabilities. Analyzing usage and availability data, companies

can more firmly commit to delivery dates, comfortable in the knowledge that they can meet those commitments.

In addition, AI also can identify weak suppliers—those with long turnarounds and unreliable delivery histories. If you have suppliers who are undependable, you can isolate them and consider whether those suppliers can or should be replaced.

Getting Closer to Your Customer

A surefire way to retain customers is to become an integral part of their businesses. This is especially true in B2B applications.

When AI can more accurately predict condition monitoring and predictive maintenance of equipment, your customers can learn to depend on you and your AI capabilities to communicate with them when something goes wrong and when there are the warning signs of possible failure. For example, this will help you and your customer maintain adequate levels of spare parts so that they can fix problems before they become expensive shutdowns.

Becoming More Productive

Strategically implemented, AI can be much more than an accurate scheduling tool. When staff become more comfortable in using AI systems and they grow in their understanding of how they work, they can become more efficient by eliminating manual errors which require time, effort and money to correct.

Some experts predict that, done correctly, AI can make supply chains virtually "self-aware, self- governing and self-determining." Of course, all those capabilities free up your human capital to focus their attention on more corrective, analytical and creative matters making them more adept at doing their specific jobs.

Effectively implementing an AI process can increase your company's efficiency and put you in a better position to most effectively serve your customers. Additionally, the more your team utilizes AI, the more possible applications will become apparent, leading to additional opportunities to grow your business.

Do you have questions about how you can make supply chain more efficient? Please call Nate Lorentz at 440-449-6800 or Nate Lorentz.