

# Report on Supply Chain Compliance Volume 2, Number 23.

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### AI solutions for supply chains

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By Sascha Matuszak

Artificial intelligence (AI) and machine learning are already reshaping the way companies approach supply chain management. The commercial use of AI is just beginning, but the adoption of this technology cannot be stopped — and for good reason: Every single task humans currently perform in their day-to-day working lives can be improved upon, sped up or made more efficient by the use of AI. Supply chain management is no exception.

### How AI can be used in supply chains

AI has countless uses in the supply chain. Here are a few.

**Logistics and warehouse management:** The web that permeates all commercial activity is transport. Not only will AI significantly impact the transport industry through the slow but steady adoption of driverless trucks, but the use of AI to sift through manifests, declarations, bills of lading, and mountains of other relevant documentation will shave millions off operating budgets and streamline logistics operations.

Some warehouses and procurement facilities are already staffed by robots that flit from silo to silo grabbing goods, moving them to a set location for distribution and finalizing the actions required to get those goods to market. Drones bring packages to the countryside.

As RSCC reported back in May 2019,<sup>[1]</sup> “Retail giants like , Inc., China-based , Inc., Walmart and others are leveraging AI to streamline supply chains to where humans will be minor players, and in some cases, may be completely removed from the procurement process. Current developments include massive fulfillment centers delivering items using robots and drones; self-driving pods that can load and unload containers; self-driving trucks and cars; and sophisticated machine learning algorithms that optimize everything from loading trucks to locating certain items in a warehouse.”

**Predictive analysis for demand forecasting:** Predictive analysis involves crunching a vast amount of data and using AI to discover patterns that can help supply chain managers understand what to stock and when to do so. Data points can include weather patterns, historic sales figures, transportation rates and policies and product shipping routes. A deep AI dive into the data can help predict trends that will aid in decision-making.

**Chatbots in procurement:** Traditionally, an employee needed to call another human to obtain procurement information, which often led to forced waiting times. Companies can now reduce those waiting times by using chatbots with access to troves of data and the abilities to analyze customer history and “machine learn” through context and trend analyses.

As RSCC also reported in October 2018, “AI can also be used to help deal with global value chain issues, such as deciphering large amounts of foreign language data. Another way is by analyzing assessments, audits, certifications and credit scores to aid in supplier selection and supplier relationships to ensure compliance, especially in industries or regions with heightened supply chain risks.”<sup>[2]</sup>

## AI and contracts

At the Assent Compliance Supply Chain Insight conference held in Phoenix, Arizona, on November 19, 2019, I spoke with Memme Onwudiwe, executive vice president of legal and business intelligence at Evisort, a company that uses AI to structure unstructured data in contracts. Through conversations with Onwudiwe, I learned a bit about the AI startup culture in Silicon Valley, and some of the major uses that drive Evisort's growth and push the boundaries of how AI is commercialized in the modern era.

The first thing to take away from Evisort's technology is the way the algorithm sits on top of multiple siloed software applications. A typical company software suite will include SharePoint, SAP and Oracle solutions, Box for IT and Salesforce for sales. These applications don't talk with one another, so organizing and structuring the data within these silos — and gaining an overview — is very difficult. Evisort's algorithm can slurp data from any one of these systems and display them in a dashboard that allows for simple navigation and search functionality.

"We can create a single source of truth," Onwudiwe said. "We do that because we play nice. We integrate; it's a system that does not require you to tell IT to stop using Box, for example."<sup>[3]</sup>

## Supply chain management

The AI application has several uses for supply chain management that are only now beginning to be appreciated by the industry.

**Contracts:** The software is designed for structuring data in contracts. The company's founders and Onwudiwe all graduated from Harvard Law School, and the first application for the algorithm was sorting through legal contracts to find clauses and data — a job that breaks the backs of interns the world over. In the supply chain industry, AI can be used to track expiring contracts, alert companies to renewal cycles and auto-renew contracts. Automating this function saves hours and hours of work.

**Rebates:** In the procurement world, companies often negotiate for rebates based on volume. A lot of times, especially at larger companies, those rebates are not effectuated due to the amount of work it would take to sift through contracts, find the rebates, see if they apply, apply them and go through the process of accounting for those payments. With AI, companies can abstract rebate tables, take the manual labor out of it and get the money they are otherwise not collecting.

**Compliance:** AI can go through your list of vendors and determine if they are compliant with the requirements of the Conflict Minerals Reporting Template, local content requirements or requirements under the U.K. Modern Slavery Act. Have your vendors filled out this template or that questionnaire? Have they disclosed the information they are required to disclose?

AI can help automate these processes and speed them up, cutting costs and making compliance with certain regulatory burdens much more efficient.

"A lot of compliance issues basically came from having visibility into existing agreements with vendors," Onwudiwe said. "You have contracts and you don't know what they say in a way that's global. Vendor contracts tend to be messy and are different from a sales contract that follows a global, internal template. Every vendor will have a different contract format, different language and different requirements. For us these use cases are exciting, because they are very revenue positive."

## Takeaways:

1. AI is revolutionizing supply chain management and compliance — the cases are numerous and very
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revenue positive.

2. Adoption and commercialization of AI solutions is moving very fast. Companies seeking to use AI will find that global solutions (i.e. solutions that sit on top of existing management systems) are increasingly common and may soon disrupt and replace more siloed solutions.

**1** Sascha Matuszak, “Experts say artificial intelligence is the future but have yet to convince those who want to stay compliant,” *Report on Supply Chain Compliance*, vol. 2, no. 8 (May 2, 2019),.

**2** Sascha Matuszak, “A look at artificial intelligence in the supply chain,” *Report on Supply Chain Compliance*, vol. 1, no. 18 (Oct. 26, 2018), .

**3** Author’s interview with Memme Onwudiwe, Nov. 27, 2019.

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