



Transforming the supply chain for the digital age

The car industry is being shaken up by data and digital processes, but those in the supply chain can gain a competitive edge by getting to grips with the possibilities presented by AI and better data governance.

Autonomous driving, connectivity, electrification, and mobility are the trends shaping the new automotive industry landscape. These trends are not only contributing to new revenue models but also reshaping the whole make up of supply chains and bringing up the dynamic set of new challenges.

As always, challenges can also seed new opportunities. It's an exciting time for companies with the right mindset to excel and stand out from the crowd. One of the key differentiating factors for these companies to deliver a significant competitive advantage over others is through data governance and AI.

Data is in abundance today and so is computer power and storage capability to ingest and process it rapidly. The key challenges are how efficiently companies can ingest the variety of data coming from multiple sources and process them intelligently, to get real-time visibility of the supply chain, and react quickest to that information. From there automotive companies can develop the capability to build predictive models, to simulate and optimise the functions across supply chain.

This emerging science of predictive analytics helps automakers analyse massive sets of historical data, so they can identify patterns and correlations that they may not have discovered or perceived through current supply chain models. This also helps planners conduct "what-if" scenarios, and evaluate options under constraints, hence helping decision-makers to take the best course of action in advance. Predictive analytics with powerful AI algorithms take this one step forward.

AI is able to recognise patterns in the current and historical data quickly and learn from them, enabling the systems to react intelligently and to take the right action toward an automated planning process. This not only helps organizations to make smarter planning decisions but remove reliance on "tribal knowledge" which runs so deep in current supply chains, it also has a cascading effect through the supply chain. Suppliers are able to plan more accurately leading to better forecast accuracy, demand patterns and improved product tracking traceability.

According to the Automotive Industry Action Group (AIAG) the automotive industry annually loses more than \$2 billion in the supply chain through the container, part, and finished vehicle inventory loss and logistics inefficiencies, and through lack of visibility and inherent control.



Transforming the supply chain for the digital age

To remove these bottlenecks and truly use the power of data, automotive players have to change the model of working. They need to adopt a mentality of collaborating with a network of partners and should be ready to share data to enable greater coordination and shared understanding of the data flows across value chain partners.

With the automotive industry progressing at hyper-speed, it is important to establish standards within this new ecosystem of players. Those automotive players who pioneer new standards will be able to create a distinct competitive advantage over others.

One of the key aspects which is often ignored by the organisation is the rules around data governance. Organisations should develop a strategy to standardise and manage their master data elements, develop rules around using their data, such as how to work with partners, what (and what not) to do with the data, and guidelines for data privacy and protection compliance.

To drive operational and business improvements, future supply chains need to have systems which can simplify or automate the complex, interrelated decision-making processes, which currently contributes to delays and inefficiencies. Once the robust quality data is in place and is available at right time, automotive companies can start harnessing the power of AI to optimise the supply chain and increase profit margins.

Some of the key areas where AI can play a key role are predictive maintenance, predicting the right lead time based on historical trends, accurately forecasting the supply and demand numbers and creating intelligent chatbots to effectively collaborate between customers and suppliers by addressing the query responses and performing automated process functions.

One key point to note here is that AI is not a silver bullet which can bring these benefits overnight. It requires good investment initially for testing AI algorithms and feeding the correct data sets to learning machines in order to get optimum results, but it's worth the investment to reap business benefits.

The most optimised and economical supply chains will be those which can harness the best use of data and AI Technologies. Those in the automotive industry, who can appreciate this and seek ways to tap into this new data fuel will have an edge over others.

Nitin Sethi is director, IT business engagement & transformation at Visteon Corporation, a major tier one supplier.

automotiveIT[®]
international

The B2B magazine for automotive IT strategists



Transforming the supply chain for the digital age

