# Embrace Uncertainty and Complexity with Decision Intelligence



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In today's economic landscape, uncertainty across the supply chain is inevitable, whether due to the effects of climate change, demand and supply variability, or global unrest. To keep up, supply chain leaders need to continuously and quickly make good decisions that consider the ever-changing circumstances, emerging opportunities and disruptions, in order to improve how responsive and adaptable they can be. For most companies, the obvious response to these challenges is to mitigate risk, the idea being that if they can predict changes to their operating environment — either inside or outside the four walls of the company — such as supplier constraints, shocks to the economy, regulatory shifts, and more far enough in advance, they can avoid it altogether, or at least limit the fallout. However, leading companies that thrive across business climates take a different approach, one that focuses on higher quality decision-making that helps them master uncertainty and harness complexity.

In order to execute decision-making strategies, companies have long been using supply chain planning technology to gain predictive insights and prescriptive scenarios to mitigate risk. As technology has evolved, new approaches to create value and drive competitive advantage have emerged. One of them is decision intelligence powered by AI and machine learning, to help inform and shape the steps of decision-making amidst increasing levels of complexity and variability. This represents a significant departure from traditional planning approaches, which are focused on avoiding uncertainty. In this new era of planning, advanced capabilities to make dynamic decisions, stress-test the supply chain and utilize probability-based planning are among the most significant drivers that can transform uncertainty into new forms of value.

In today's unpredictable world, a faster, more agile method that accounts for uncertainty is often a more effective way for supply chains to navigate the tumult of our current business landscape.

### A Shifting Landscape
In the last decade alone, supply chains have become more complex than ever before. According to Matt Hoffman, VP of product and industry solutions at John Galt Solutions, there are several intersecting factors contributing to this complexity, such as increased variability, broader supplier bases, globalization and the fact that the sheer number of people involved in each decision has increased.

Simon Ellis, group vice president at International Data Corporation (IDC), adds that the need for faster decision-making, increased disruption and higher customer expectations are also important factors to consider. "Customers expect better forecast accuracy, better customer service," he says. "They are far less forgiving today than ever in the past."

To an extent, customers expect more because more has become possible. With the help of improved technology, companies can offer more speed and reliability to the customer. But another element of this shift is that supply chains themselves function differently than they used to.

Previously, supply chains operated more linearly and in silos. Visibility was often limited to each of those silos, rarely extending across the rest of the supply chain. Supply chain planning was also more static. Forecasts would capture a point-in-time snapshot of demand, supply and market conditions, and this snapshot would change very little until the next round of forecasting.

Despite its apparent limitations, that system worked fine, as the linear supply chains could tolerate longer decision cycles. But today's supply chains are more interconnected, and must respond to constant change and more complexity. Data needs to be collected in real time and the decisions based on that data must take into account the constantly changing conditions of a globalized economy. End-to-end visibility and connected, cross-functional supply chain decisions are no longer a luxury, but a necessity.

In our current landscape, siloed and static planning creates highly fragile supply chains that are resistant to change (often trying to avoid change), and technology designed around this older model simply isn't compatible with today's world.

**The Value of AI and Supply Chain Decision Orchestration**

According to Ellis, decision intelligence is uniquely suited to solve these challenges. For one, AI-supported decision-making is faster and more efficient than its older counterparts. It creates real-time analyses of supply chain conditions, and it allows for far more dynamic decision-making. "Ten years ago," he says, "it took four or more weeks to run a sales and operations (S&OP) plan. AI-enabled planning solutions deliver faster decision-making at a far lower cost — in hours or days, not weeks."

AI-driven decision intelligence solves for a more complex array of supply chain planning issues, by automating the orchestration of decisions that integrate various processes and functions while also providing transparency and analysis across the organization and its partners. For example, if a company is deciding whether or not to nearshore production, AI can help it determine the implications of that decision on cost, customer service, sales, cash flow, capacity, sustainability and other factors, as interconnected elements of the overall decision versus individual elements that operate independently of the rest.

As those decisions are implemented, AI-enabled supply chain planning platforms track the decision results over time, so any user, regardless of role or skillset, can look back at how their decisions performed and adjust their strategies accordingly, when and where needed. One no longer has to wait for a monthly executive review meeting; these decisions and reviews happen at the speed of business.

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With AI doing the heavy lifting, human planners are free to focus on higher-level work. The system, which is a repository of planning knowledge, is designed to work with humans, not replace them, says Ellis. This creates an important shift in the typical supply chain planner's job. Where previously, that person was tasked with knowing all of the necessary planning details, now that person can rely on the system to hold that information, while the supply chain manager moves on to more complex decision-making.

**A Different Approach to Decision-Making**

Traditional planning processes rely on outdated systems that are designed to predict and avoid disruption and fight complexity. They catalogue potential risk, and then make a plan to avoid, mitigate, and react to it, all while striving for ever-more-precise and accurate plans. However, this approach, which focuses on chasing accuracy and certainty, is not the right approach to navigate the dynamics of today's landscape.

As business complexity continues to grow, says Alex Pradhan, Global Product Strategy Leader at John Galt Solutions, businesses must embrace, not fight it. Denying or fighting complexity and uncertainty is a hopeless battle. A decision intelligence approach offers a way to both deal with the greater complexity and go beyond — to embrace both complexity and uncertainty, and transform them into competitive differentiators for the business. Here, Pradhan argues, companies can maximize their business value and outpace their competition by recognizing the influential factors as opportunities, not threats.

Supply chain planning platforms infused with this dynamic decision-making approach help companies move towards a more flexible, adaptable and composable

supply chain. Instead of striving for a perfect plan, these platforms acknowledge the inevitability of both uncertainty and variability across supply, demand and other factors. They then generate a range of possible scenarios and outcomes, so planners can choose the best course for a given set of conditions, goals and risk tolerances. This allows for a more agile supply chain that does not try to control or avoid disruptions. Rather it embraces volatility as a constant, plans for it, and remains flexible enough to manage and predict it.

**Changing Priorities
in the Market**
Companies are increasingly prioritizing cost control in their supply chain management strategies. At the same time, efficiency and resiliency remain crucially important and, if neglected, could end up costing the company even more money, despite the upfront investment in new technologies. Slow decision-making, for instance, can seriously impact a company's bottom line, says Hoffman.

The key is to find the balance between investment, cost control and supply chain agility. Oftentimes, says Pradhan, the upfront investment in a particular decision can generate value in the long run. For example, a planning platform may recommend a company source from a particular supplier, because that supplier offers more supply certainty. At the outset, that choice may cost more in inventory and product costs, but reliability can be more valuable than the company might think, if the alternative is a greater loss in sales and customer satisfaction due to poor supplier reliability.

Agility cannot be underestimated in a company's overall cost control strategy. Not only can a more agile supply chain help companies weather even the most dramatic global crises, but it can also help them come out on top on the other end of a crisis because they embraced, rather than tried to control or avoid, uncertainty.

> **"In a world where things seem to go wrong more often, more frequently and with more impacts, these solutions are essential."**

For example, says Hoffman, uncertainty caused by changes in consumer behavior, like a shift in spending habits (prioritizing experiences over physical goods, or tightening wallets that shift to more spending on private label

versus branded products) often catches companies off-guard. An AI-enabled planning platform can use predictive analytics to spot this kind of market trend, and proactively make adjustments. In doing so, it also takes into account the many players throughout the supply chain who could be impacted, including internal decision-makers, external suppliers and other outside partners.

During times of uncertainty, companies that understand the changing market needs — and pivot early — gain a significant head start. Because they were able to quickly shift their strategies, they are better prepared to handle the rebound effects down the line, resulting in long-term savings.

**Conclusion**
Pradhan says that, at the end of the day, it's all about making better, faster decisions. Yesterday's technology simply isn't compatible with the needs of modern supply chains. But, with the rise of AI-driven approaches like decision intelligence, companies can invest in the necessary tools not only to keep up, but to thrive in an increasingly complex economy.

"In a world where things seem to go wrong more often, more frequently and with more impacts, these solutions are essential," Ellis adds. Companies that can respond with a real-time, data-driven plan will reap the benefits.

*Resource Link:*
John Galt Solutions,
https://johngalt.com