



Increasing supply chain resiliency with Predictive AI and external foresight

Over the past three years, risk and disruption in supply chains have been commonplace. This is due not only to COVID-19, but other factors like transportation, material cost increases, inflation, wages and unpredictable consumer demand. In the face of such an environment, supply chain resiliency has become a top priority across the board.

The companies that have remained the most resilient have been those able to better predict disruptions before they occur and adjust their strategies and tactics accordingly. The problem: prediction is rife with variables, and most companies only consider internal data and past performance - information contained and controlled within their "four walls."

This approach worked when the market was relatively stable. Now, however, supply chain decision makers need to understand which external factors and drivers will impact future supply and demand for their lines of business. Ideally manufacturers need to attain quantitative predictions of future raw material cost and availability, and short-, medium- and long-term demand forecasts. These are all possible with Prevedere predictive AI.

Recently, Prevedere hosted a [webinar](#) to discuss what companies do to overcome these challenges in supply chain resiliency. The speakers are included Simon Ellis, Program VP of Manufacturing Insights and Supply Chain Strategies at IDC and Andy McCartney, Head of Product Marketing at Prevedere. Read on for a summary of their discussion.

Digital maturity drives profitability

Given the looming specter of a recession, digital transformation is going to play a major role in enabling businesses to better solve problems and maximize advantage of future opportunity. Some industries will be hit harder by the recession than others, meaning that the path forward will vary wildly for each organization.

According to research from IDC, there's a strong correlation between digital maturity and an organization's profitability.

This correlation shouldn't be surprising. Looking at supply chains specifically, if companies are able to quantify likely external outcomes, they can build mitigation into their operations and processes. Unfortunately, most companies aren't operating at that level, which means they adopt a reactive posture. This, in turn, impacts their operating efficiencies and profitability.



Flawed business predictions and plans

Many organizations attempt to predict future outcomes to some degree. In a stable world of gradual growth or decline, these predictions would be accurate enough to enable business plans and strategies to be relatively successful. But with significant market uncertainty, a business prediction that is missing many of its key drivers (i.e. external influences) is almost worthless. In order to 'market-validate' business planning, those influences need to be identified, quantified and incorporated into existing planning systems and processes.

External data has been missing in planning up to now. Fortunately, today's data-driven world means there is exponentially more data than just a decade ago. The challenge is taking that wealth of data and converting it into usable insight. According to IDC's research, visibility, and data intelligence with regard to their supply chains are critical for companies to be successful in the future.

The rise of digital networks and ecosystems

As we enter the third year after the pandemic, companies are starting to shift their priorities with regards to supply chains. Specifically, digital networks and ecosystems are growing in prominence, as is the ability to connect across partners, ERPs, and planning and fulfillment tools to create a truly end-to-end experience.

In this way, supply chains are now capturing way more data, and also making the connections necessary to act on that data and prescribe solutions to the most appropriate operational system.

How does this relate to the supply chain control tower model? Simply put, control towers have largely been static, showing what has happened and what is currently happening. A more dynamic approach, however, is to

leverage AI and machine learning algorithms find out what will happen and prescribe that across supply chain processes and systems.

However, keep in mind that no matter how good your technology, they will only be as effective as the data underlying it. If you rely exclusively on internal data and past performance to make predictions, you'll only know what's happening within your four walls. This means you're missing close to 80% of the insights necessary to make accurate predictions, plans and decisions.



What does mature supply chain orchestration look like?

A mature supply chain orchestration approach has to be layered. While the majority of growth is now in the cloud and SaaS, there are plenty of legacy on-prem or hybrid solutions that aren't going anywhere anytime soon. Different people within the organization will use different pieces, depending on where they sit and what their immediate business priorities are.

The live supply chain takes advantage of modeling capabilities, digital twins, scalable data and analytics,

and more. It's important to make sure you don't have analytics gaps—and that your planning processes can leverage these new layers of intelligence.

Additionally, machine learning algorithms can become task replacements, which helps with the labor shortages and challenges that companies are having finding people. Resilience is about data through analytics to action. And it's important to be resilient to both internal and external disruptions.

Increasing supply chain visibility, intelligence, and agility with Advanced Predictive Planning

The good news for you: there's a proven but relatively unknown method for increasing supply chain visibility, intelligence, and agility. Advanced Predictive Planning (APP) combines internal and external data through a machine learning-based econometric modeling platform and generates market-validated predictions for the short-, medium- and long-term planning horizons.

Given the number of external factors that are plaguing the market—COVID, inflation, recessionary pressures, geopolitics, labor shortages, wage growth, supply chain problems, consumer behavioral shifts, and more—external predictive insight is more critical than ever.

The power of APP is identifying which particular external forces will most impact a specific business and providing

economic based insights that enhance existing internal forecasts. This holistic, data-driven approach presents potential impact scenarios customized to the business and provides recommendations for avoiding potential downfalls and seizing upcoming opportunities. Reducing forecast misses is one of the biggest benefits of APP, providing a plethora of cost savings, growth efficiencies and competitive advantage.

By removing planning blind spots, APP can help keep your supply chain resilient and agile in the face of the oncoming storm. [Learn more about how to get started with APP here.](#)

Learn more about how Advanced Predictive Planning makes business forecasting and planning more holistic, robust and actionable.

Contact: (888) 686-7746 or inquiries@prevedere.com

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