Sponsored By

supplyfocus
by Cubewise

Data Science & AI Trends
Powered by
CDO TRENDS

Modernizing the SCM Model: Moving From Traditional to Dynamic and More Integrated

In an environment filled with supply chain shocks, data-driven
visibility across the supply chain becomes a business imperative.

Winston Thomas

COVID-19 exposed the fragility of supply chains.
When the supply-demand economics became lopsided because of macro factors and demand for certain goods impacting other industries (e.g., consumer-driven semiconductor shortage affecting car manufacturers), the global supply chain wobbled under strain.

Cracks began to show. A single stranded ship in the Suez Canal threatened a global supply chain. Lack of containers impacted global distributions, even though demands remained strong. Retooling the supply chain for vaccination impacted the distribution of other goods.

These supply chain shocks are not going to stop. The 2020 Gartner Supply Chain Distribution Management and Impact Survey noted that

97% of supply chains experienced a disruptive event in the last two years, with 52% considered high-impact events.

Many supply chain players who comfortably rode on rising global demand with rigid supply chains were caught out. "A lot of companies traditionally looked at the supply chain as securing demand. It saw many organizations working with specific suppliers. The supply chain became static; it wasn't changing. COVID-19 increased the risks, and these players were unable to diversify," says Ulas Bozkurt, practice manager at Cubewise.

To gain immediate visibility into these risks, companies had to analyze better and faster. "Companies needed to do more short-term planning. They needed to take control of their stock and inventory in a crisis but were unable to," adds Mathilde Opsomer, senior consultant at Cubewise.

How data is shaping the modern SCM

Amir, a product owner in the demand and supply management department at a global retailer, noted the challenges of recent years showed why supply chain players need to focus on customer experience.

"For example, we used to deliver our product in more than a week. Now, in most cases, it's shipped within the same day or next. We try to differ from our competitors and create a premium digital experience," he said.

This ability to be agile to consumer needs requires a more dynamic and integrated supply chain. It is where supply chain analytics is playing a significant role.

Bozkurt noted that supply chain players are looking to widen their supply chain. For example, many European companies looked for alternative supply bases, realizing that they need alternatives to be more dynamic.

This makes planning and management more complex. "Hence, the focus on analytics. It allows supply chain players to become more proactive instead of being reactive," explains Opsomer.

For Amir, part of the complexity comes down to having a single version of the truth. "Different teams planning and analyzing data should drive the same results regardless of what sort of systems they use. It needs to be aligned and connected."

Planning depends on data connectivity

Amir's remarks echo the underlying strength of Cubewise's Supply Focus. It promises to bring together leading technologies and industry best practices for end-to-end supply chain visibility. It uses IBM Planning Analytics powered by TM1 for planning and reporting.

This visibility becomes critical as supply chain companies work in a fast-moving environment where traditional rules of supply and demand sometimes do not apply. Instead of focusing on cost-effectiveness and leanness, companies need to build capacity for resilience and pivot if required.

"The keyword is 'optimization.' You need to optimize the whole process constantly. Not just once. It allows you, for example, to reuse obsolete stock," explains Opsomer.

But to connect data, you need supply chain players to share data. Amir observes that companies are beginning to see the value in sharing the data — as long as the ROI for them is clear.

"It is not that companies do not want to share data. They will if the ROI is clear," says Amir.

"If you provide value back upon sharing data, it will be beneficial for all parties. Our priority is now to focus on strategic partners to build better relationships and grow mutually. Less focus on selling to everyone," he adds.

It is one reason why companies are focusing on solutions like Cubewise's Supply Focus. It connects the different parts of the ecosystem which previously run discretely. It also allows for real-time planning, an essential requirement for companies looking to navigate the pandemic-driven complexity.

Attitude adjustment

While the tools and platforms are available to create a more dynamic and integrated SCM, it still requires people to be ready. And this is where a lot of companies are struggling.

"The supply chain 40 to 50 years ago was focused on projection. The capacity will be set, and the merchandise planner will sell. Now it is demand-driven," Opsomer explains.

Amir highlights the need for an agile mindset to handle "demand-driven SCM."

"The agile mindset is the most valuable thing that an executive can focus on. We struggled a lot with it even though we had agile coaches. But the coaches alone are not the only thing that made a difference. The transition of planners to an agile mindset takes time, and it's not easy. We're only halfway there," says Amir.

Bozkurt adds that his company is focused on this area. "A lot of companies have ERP. But it is transactional. Planners need to be strategic, and so planning software needs to enable this by integrating data and offering end-to-end visibility."

End game

This visibility will become more critical as companies aim toward what Gartner calls "fit" supply chains. These are dynamic and more integrated, with 33% citing high tech having such supply chains.

In a related report, Gartner notes that the fittest supply chains are those that pursue "purpose and partnerships that differentiate the fit from the fragile, such as sustainability and collaborative practices" — a point that Opsomer shared earlier in terms of reuse.

Companies like Cubewise are focused on enabling this. And Gartner highlights a hidden benefit: the ability for supply chain players to turn high-impact disruptions to their advantage.

"Position yourself to seize the opportunity that disruptions can bring by proactively identifying likely shifts and driving your high-impact events as positive forces for change, well-aligned to the business priorities and your risk-balanced operating model practices," the research firm advises.

If you don't, your rivals will.

Planning in the Digital Age

A more dynamic and integrated supply chain management requires a strong vision, the right tools, and an agile culture. Anything less will only lead to disappointments.

Winston Thomas

Supply chain agility is a significant focus for many companies. It's not about navigating the pandemic. While it did highlight the importance of a dynamic and more integrated SCM, companies want to become more responsive to actual customer demands.

It's one of the primary reasons for the global push toward supply chain digitalization — except it faced one major hurdle.

"Supply chain digitalization had lots of things going on along with technology evolvement, it's overwhelming, and companies need to have an appetite for digitization. It is also very expensive," observes Ulas Bozkurt, practice manager at Cubewise.

The cost did not justify the immediate outcomes for many. And it is not just your company that is involved; you need the entire supply chain to be tooled up and digitalized.

With the pandemic reinforcing the need for supply chain analytics, companies need to look past the cost picture. The question is no longer if they should begin but where.

It begins with a vision

Moving to a more dynamic and integrated supply chain cannot be done overnight. Instead, it requires a robust framework and baby steps while getting everyone in the supply chain ecosystem ready to collaborate and drive real-time analytics.

This makes a vision of a digital age imperative. "The leadership needs to have a vision, and they need to invest in this vision," says Bozkurt.

A strong vision also brings together the different parts of supply chain operations.

"You need to bring all the teams under the same vision so that they can understand the best practices and bottlenecks. Having the right tool is beneficial, but the entire team needs to get involved from

Ulas Bozkurt @ Cubewise: "A top-down vision and proper guidance help you sell the idea across the company. Also, not just the idea but the 'why' and the 'how.' People need to understand the reason to change to be onboarded with the idea."

the beginning while (re)designing the whole process," says Mathilde Opsomer, a senior consultant at Cubewise.

Bozkurt offered a multinational retailer as an example, which was managing a mix of traditional and digital channels. So, the company banked on Cubewise to deploy driver-based planning to its more than 300 planners.

"For some planners, it was a steep learning curve; for others, it was a job threat. A top-down vision and proper guidance help you sell the idea across the company. Also, not just the idea but the 'why'

and the 'how.' People need to understand the reason to change to be onboarded with the idea," says Bozkurt, adding that it reduces resistance to change.

Next step: planning & reporting

Not all companies have the budget or corporate grit to start a full-scale digital transformation journey. So, Bozkurt suggests planning to be the place to start.

Why? "Comparatively, it is not that expensive. But also because planning requires a lot of time and digitization can make planning more efficient," he says. In addition, making the ROI gain demonstrable will also offer companies the confidence to push forward with their digital transformation journeys.

Cost aside, digitalization and retooling planning make sense as it needs to become more "proactive" and efficient in such a dynamic landscape, explains Opsomer.

Planners will need to manage higher data velocity and volumes.

Mathilde Opsomer @ Cubewise: "Having the right tool is beneficial, but the entire team needs to get involved from the beginning while (re)designing the whole process."

They also need to be careful about bias hidden within the data sets, increasing their workload in preparing the data.

Another challenge is that data will not be homogeneous. To gain better visibility (especially in the absence of traditional market drivers), planners will need to work with third-party data sets from their customers and even competitors. Add to the non-standard data formats that many social media or IoT devices use, and you can imagine the orchestration headaches for planners.

"This makes [supply chain] analytics a lot more complicated. But it is essential as it offers an insightful overview of the entire marketplace," says Bozkurt.

Yesteryear spreadsheets and manual processes are not designed for today's ever-changing challenges. But completely removing them is not an option for many cash-strapped or lean-operating supply chain players.

It is one reason why Bozkurt sees a good fit for Cubewise solutions. While it is not designed to replace spreadsheets, it works with existing tools and processes and helps organizations get one step closer to their digital transformation journey.

"It offers a more practical step forward to [making your planning more efficient]," Bozkurt comments.

Focus on the agile mindset

Opsomer believes that having the right tools is only half the solution. "You also need the right mentality and cultural change. You need a mindset to question things."

As explained in the previous Overview article, a mindset change is a lot more complex than a tool change. Yet, to maximize the supply chain analytics advantage, companies will have to go through this journey.

A more agile mindset can help supply chain executives to explore and experiment with new scenarios, new technologies. Operational managers can maximize new opportunities, address local market challenges, and sidestep potential problems. Senior managers can make quick data-driven decisions on changing their operating models or even pivot when necessary.

If companies do not allow for a more agile mindset, they risk being caught in the next black swan event.

Supply Focus:
Understanding the Core Benefits

S upply Focus is a bespoke SCM solution that enables organiza-
tions to get the most value throughout their planning, analysis,
and reporting processes.
We look to empower users and provide the necessary flexibility,
speed, and a collaborative platform with an intuitive user experience.
We believe it is the best way we can add the most value.

Understanding the platform

Supply Focus, in a nutshell, is a dynamic planning and reporting
platform which enables users to sense and serve consumer needs

We focus on demand planning, merchandise planning, production
planning, supply planning, demand sensing, inventory planning, align-
ment, and distribution at the highest level.

*At Supply Focus, we know every company and industry is unique.
It is one reason why we've created a bespoke solution and not a
prebuilt standard product.*

Dynamic planning & reporting platform
Sense & serve ever-changing consumer needs

Dynamic
- **Cross-functional modelling**
- **Driver-based, top-down, bottom up, ZBB**
- **Multi-scenario planning**
- **Improved planning and analysis functionalities**

Essentials
- **Flexibility**
- **Speed**
- **Data visualization**
- **Real-Time**
- **Intuitive end-user experience**
- **Seamless and integrated ecosystem**

Capabilities
- **Prediction engine**
- **Decision optimization engine**
- **Excel Add-in**
- **Cloud / On-prem**
- **Secure**

The platform is built around three pillars.

Pillar 1

The first is classification, which makes a planning and reporting solution dynamic.

Cross-functional modeling is one of the core abilities. This allows you to leverage supply Focus in an area where you need the most but also have the ability to extend and expand.

For example, you can start with demand planning, extend to a different area like production planning, capacity allocation, SKU allocation, inventory optimization, and so on. It provides a connected platform where you can enable yourself to drive informative decisions and develop the best outcome.

Pillar 2

In the second pillar, we consider the essentials. These are the "must have's" to cope with day-to-day challenges.

Here, flexibility is crucial. We need to embrace the business complexity but also look for simplicity where we can. At the same time, we look to eliminate unnecessary complexity and duplication.
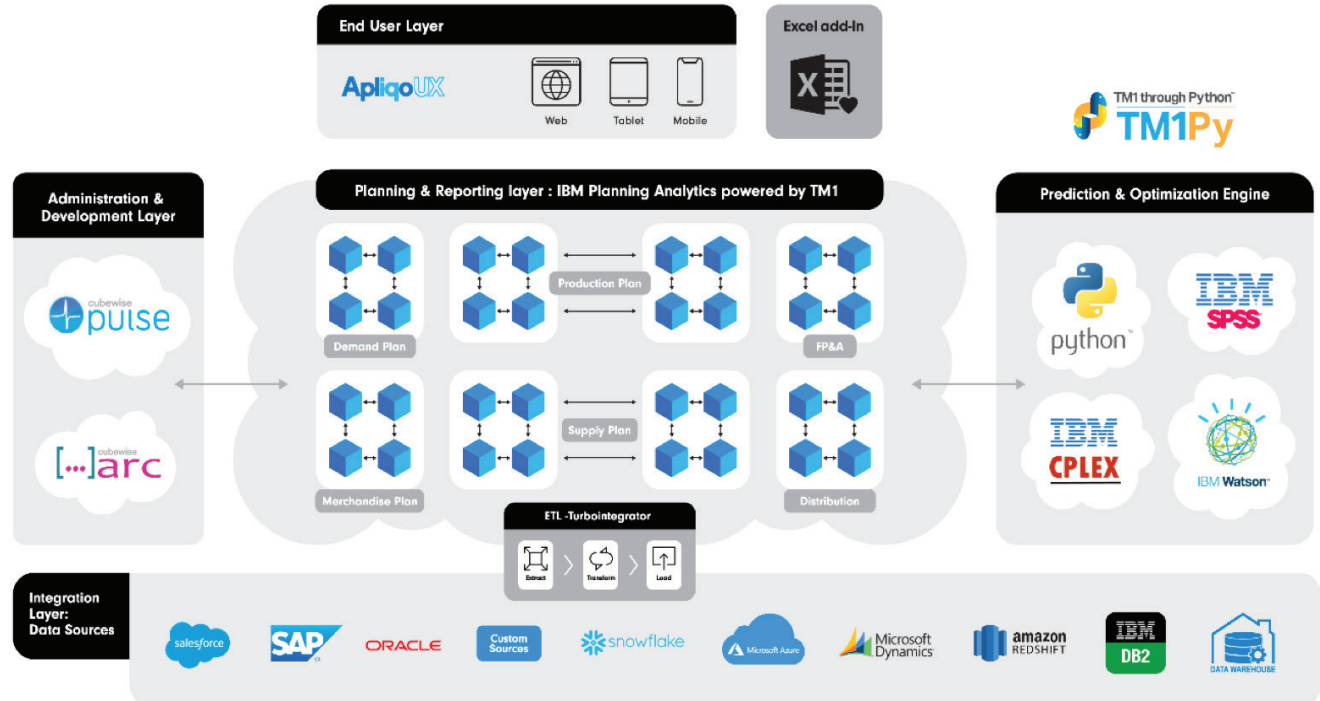
Performance becomes crucial. Modeling, calculation time, planning, and analysis need to be done within a short period. It makes visualizing the data, real-time calculation, and an integrated ecosystem essential.

User experience is something Supply Focus looked into very carefully, as in today's world, UX is crucial for pretty much everything we do. It is one reason why we adopted the "Design for usability" mentality: which drives an intuitive user experience on any device.

Pillar 3

The last pillar is about additional capabilities. At Supply Focus, the prediction and optimization engines are at our core, making it easier to do statistical modeling, machine learning, or optimization.

Planners who are comfortable with Excel or Excel-like systems can also use the mature Excel add-in. It eliminates the Excel hell. So, no more Excel crashes, formula errors, manual data collection, etc.

Sponsored By

supplyfocus
by Cubewise

Data Science & AI Trends

Powered by

CDO TRENDS

War on Data: A Data Science Perspective

As companies become data-driven and data-centric, data's role will continue to shift and expand. But are they ready to see data in a different light?

Winston Thomas

Data is now the lifeblood that courses through the veins of business. It is not something new. Timely information and insights always drive business. But with the global business market drowning in data, getting relevant, actionable insights is becoming more difficult.

We ask Achim Granzen, principal analyst at Forrester, about the current trends and what companies can do to maximize data-driven opportunities.

How has the role of data changed over the last few years?
Granzen: Today, we have a more balanced view of the value and usage of data than, say, 10 years ago. We have understood the value of insights but also the need for regulations around the leverage of data. We have gained an understanding of bias in data, particularly when training AI algorithms, and we see increasing awareness of the ethical use of data. These views took time to develop; even tech giants have stumbled.

I don't particularly like the term "data is the new oil," but let's go with it for a moment. Rather than focusing on the role as an economic driver, let's take a different view. If data is indeed the new oil, have we had any Exxon Valdez or Deep Water Horizon moments yet? Through ruthlessness or carelessness, data spills instead of oil spills, breaking privacy laws instead of environmental and safety regulations.

Probably one that comes to mind is Facebook/Cambridge Analytica from 2018. That has generated a massive public outcry and awareness among policymakers. Since then, we have got GDPR, the Personal Data Protection Act (PDAP) in Singapore, and a host of other regulatory frameworks worldwide. In that sense, I am positive that we are more aware of the benefits and the dangers of data leverage today.

Why should organizations have a data strategy?
Granzen: An organization's data strategy has to manage a delicate balancing act. It has to balance the desire to use data — including customer data and employee data — for business insights and business advantage, with the rising demand of consumers for privacy and data protection and the increasing regulatory boundaries for data usage. That includes frameworks such as GDPR and PDPA and those focusing on the ethical use of data and AI, such as the FEAT framework set up by the Monetary Authority of Singapore.

Another aspect of a data strategy is security, directly leading on from the above. Modern security frameworks such as zero-trust strongly advocate a data-centric and identity-centric approach to security, so here is a direct intersection of an organization's security strategy and data strategy.

What are the top mistakes or misconceptions around data that companies make?
Granzen: One of the critical misconceptions is around ownership: Even though you may use data for decision-making and insights generation, you may not own that data. That's a crucial difference. In the early days of social media monitoring, for example, data was often taken for granted. However, it was neither owned by the organization nor was it ultimately verifiable in accuracy.

Another misconception is around data volume. "The more, the better" doesn't work. Being data-rich and insights poor is not a good strategy for success. Determine your data needs from the business insights you want to obtain and link it to your organization's business objectives. Large-scale data initiatives often fail not because the technology crumbles under data overload but because there was never any documented agreement on what the business use cases and objectives were in the first place.

Any tips to ensure data accuracy?
Granzen: Like clean energy, clean data is only achievable to a certain degree. And this degree differs significantly in the application and use case. Imagine using training data for an AI algorithm. If it's about determining your eligibility for a promotion, it has less of a risk associated with accurate data than, say, image recognition for autonomous driving. With this in mind, be sure to understand and map out data accuracy requirements — and implement in technology accordingly.